X

PROGRESS REPORT

OF

FOREST ADMINISTRATION

IN THE

CENTRAL PROVINCES

FOR

1877-78,

By Major J. C. DOVETON, M.S.C.,
CONSERVATOR OF FORESTS,

WITH A REVIEW BY THE CHIEF COMMISSIONER

AND

ORDERS BY THE GOVERNMENT OF INDIA.

1879.

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No. 446 F., dated Simla, the 26th May 1879.

From—A. O. HUME, Esq., C.B., Secretary to the Government of India, Department of Revenue, Agriculture and Commerce,

To—The Chief Commissioner of the Central Provinces.

I AM directed to acknowledge the receipt of your Secretary's letter No. 4225—209, dated the 8th October 1878, transmitting the Report of Forest Administration in the Central Provinces for the year 1877-78, together with your orders thereon.

2. In the orders on the Report for 1876-77, an important change in the system of Forest Administration was adverted to. This change took effect in July 1877, and the Governor General in Council is glad to observe that the new organisation has thus far been found to work in a satisfactory manner. This organisation aims at establishing more intimate relations between the Forest and Civil Administration, and this has been effected by making the limits of Forest Divisions coincide as far as possible with the boundaries of civil districts, and by appointing a Forest Officer as Assistant to the Deputy Commissioner in each district where the forests are of sufficient importance. The district Forest Officer has charge of both reserved and unreserved forests; with regard to the reserves he is directly subordinate to the Conservator, while in all matters connected with the unreserved forests he is the assistant for forest matters to the Deputy Commissioner, and receives all orders from him. In some cases it was found convenient to attach to a district Forest Officer's charge reserves, or portions of reserves, situated in an adjoining district, and thus it has been possible to introduce the new organisation without considerably increasing the number of forest charges. In districts which do not contain sufficient forests to justify the appointment of a separate district Forest Officer, no change in the organisation has been made.

3. The area of the reserved forests, as stated in the Report, has been increased from 2,391 square miles to 2,548 square miles by the addition of the Chandgarh and Khandwa forests in the Nimar district. The Governor General in Council approves of the principle stated in paragraph 2 of your orders, that in the selection of new areas to be permanently maintained as forest accessibility and vicinity to populous tracts demand as much attention as the standing crop of timber.

4. The area protected against fire up to the 30th June 1877 aggregated 504,824 acres. Unfortunately, some forests included in this area were burnt during the hot season of 1878. This happened in the sâl forest of the Banjar valley, in Saonligarh, Bori, Kalibhit and Bowergarh. The burning of 1,600 acres in the Bori Forest, which had been continuously protected since 1864, is much to be regretted. On the other hand, large additions were successfully made in Rajaborari and Punassa, as well as in the newly-added forests of Khandwa and Chandgarh. Altogether the protection of 702,310 acres was attempted, of which 575,304 acres were reported to have been safe at the end of the dry season of 1878. The total outlay on this important work from the commencement has been Rs. 77,363, of which Rs. 10,503 were expended during the year under notice.

5. The rates paid for fire protection vary extremely in different forests: thus, in some reserves of the Saugor district the rate was under Rs. 2 per square mile; in Rajaborari, Saonligarh and Khamapur it was between Rs. 3 and 4, while in the forests of the Chanda district the average was Rs. 42, and in one forest in that district (Mirkulloo) the rate was as high as Rs. 90 per square mile. The exceptionally high rate in Mirkulloo the Conservator ascribes to the irregular shape of the forest, the result of which is a great length of boundary (2·4 miles per square mile of forest).

This experience teaches an important lesson in the matter of selecting forest boundaries, which may be noticed in other provinces also.

6. The Conservator again bears testimony to the beneficial effect of fire conservancy upon the condition of the growing stock. Mr. R. Thompson, the Deputy Conservator in charge of the Chanda forests, speaks of countless teak and bija sâl seedlings, where formerly they were with difficulty found. In the Ahiri and Goverdhun forests he states that former blanks are now closing up with a uniform growth of young seedlings and shoots from old stumps, hitherto kept down by the annual burning of this forest.

In paragraph 10 of the Report the Conservator states that, experimentally, the grazing of cattle was allowed in part of the protected areas of Saonligarh and Rajaborari, and that the fires which occurred in these blocks were in no way attributable to this circumstance.

This is satisfactory as far as it goes, and the success of fire protection in forests where grazing is permitted should be especially noted in future reports.

7. In addition to fire protection the Conservator reports a variety of other operations undertaken with the view of increasing the growing stock of the valuable kinds of trees in the forests. Teak and anjan were sown in plots in Punassa, and teak in the Korai block of the Satpura reserve. In the Moharli forest teak was planted out on a large scale. Judging from the Report, these operations have not, however, been altogether successful; at the same time the outlay incurred was small, and it doubtless is a matter of great moment to discover inexpensive methods for increasing the growing stock of the more valuable kinds of trees in the forests by cultivation.

Progress is also reported in the cutting of creepers, in clearing young plants of teak and other valuable kinds in the forests, and in cutting back badly-grown teak. Upon the whole, it may be said that the Report gives evidence of great activity in the matter of cultural operations in the forests.

The beneficial effect of these operations, coupled with the exclusion of fire and continued protection against cutting and other injury, must, it is hoped, in course of time manifest itself in increased revenue.

8. The account given in paragraphs 8 to 13 of your review of the measures taken and contemplated in regard to the management of the unreserved forests has been read with great interest, and it is clear that considerable improvement has been effected.

While fully recognising the large share which Commissioners of divisions and Deputy-Commissioners of districts have taken in initiating a better system of management, you consider that they have been greatly aided by the advice of the district Forest Officers.

9. The reserved forests yielded of sâl timber 11,819 cubic feet, of teak timber 5,413 cubic feet, 80,713 teak poles, and 20,428 poles of other woods, 2,702,176 bamboos, 14,303 cart-loads of fuel, 24,629 cart-loads of grass, and 45,382 small pieces of wood for agricultural purposes. The average cubical contents of some classes of wood are given; but poles and small pieces are not so calculated, nor has an attempt been made to express the entire yield of the reserved forests in cubic feet of solid wood. It is suggested that the Conservator should take steps to do this as accurately as may be in future reports, and attention should be paid to this matter year by year, so that more complete data may be collected regarding the annual yield of the forests. While, as at present, the yield in material of the reserves is insignificant and far below the yielding power of the forest, these data are not of great importance; but it is well gradually to prepare matters for a more complete working of these forests.

10. The receipts and charges of the year were as follows:—

Receipts		Rs.	6,83,910
Charges	A—Conservancy and works Rs. 1,78,400		
	B—Establishments „ 1,39,277	„	3,17,677
Surplus ...		„	3,66,233

Debiting the reserves with two-thirds and the unreserved forests with one-third of the direction charges, the receipts and charges of the two classes are compared thus:—

Reserved Forests.

Receipts	Rs.	1,47,798
Charges	„	1,78,950
Deficit ..	„	31,152

Unreserved Forests.

Receipts	Rs.	5,36,112
Charges	„	1,38,727
Surplus ...	„	3,97,385

11. In paragraph 28 of the Conservator's report a statement is given shewing the increase in revenue during a period of 15 years from 1863-64 to 1877-78 divided into three periods of five years each. The figures given in the statement do not agree with those recorded in this office, which shew that the average annual receipts and surplus of the three periods have been:—

	Receipts.	Surplus
	Rs.	Rs.
1863-64 to 1867-68	2,33,058	1,08,749
1868-69 to 1872-73	4,70,822	1,60,252
1873-74 to 1877-78	6,60,143	3,49,168

The great advance made in the Central Provinces in all respects during the same period by the opening of the Railways, the stimulus to trade of all kinds, and the extension of cultivation, have tended greatly to increase the value of the forests, and there is good ground for hoping that in future the revenue will still further increase.

At the same time, the value of these Government domains has been largely augmented by the demarcation of reserves, their preservation from fire, and other measures taken to protect and improve them. The care and attention bestowed on all these matters by Major Doveton and his officers are most praiseworthy. The Governor General in Council desires to acknowledge the care and energy which you have bestowed upon this important part of the public administration in the Central Provinces.

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FROM

LINDSAY NEILL, ESQUIRE,

OFFG. SECRETARY TO THE CHIEF COMMISSIONER,

Central Provinces.

To

THE CONSERVATOR OF FORESTS,

Central Provinces.

Dated Nagpur, the 8th October 1878.

SIR,

I am directed to acknowledge your report on Forest administration for the year 1877-78.

2. At the beginning of the year the area of reserved forests was 2,391 square miles* ; at its close the area was 2,548 square miles. The increase is mainly due to the reservation of the Chandgarh and Khandwa forests in the Nimar district, which added 152 miles to existing reserves. The policy of increasing the reserves has been steadily followed by the Administration; and the sole reason why progress in this direction is not more rapid, is because the present strength of the Forest department is too small to admit of members being specially deputed to examine and report on forests which it would be desirable to take up as reserves, in the selection of which accessibility and vicinity to populous tracts demand as much attention as the standing crop of timber. The forests in the Central Provinces, however, whether classed as reserved forests under the more scientific management of the Forest department, or as unreserved forests roughly administered by District officers, are equally the full property and at the sole disposal of the State ; and action which the Chief Commissioner hopes shortly to be able to take under the provisions of the new Forest Act (VII. of 1878) will add immensely to our " reserved forests."

Omitting acres

3 In Chapter II. you deal with the reserved forests, which seem distributed among nine divisions.

In the Mandla division there are 297 square miles of reserved forests. The expenditure on line clearing was nominal and breaches of the Forest rules were few. In this division the acreage of forest under protection from fire was 84,471 in five forests, out of which 78,919 acres were successfully protected at an average cost of Rs. 8-9-7 per square mile. In the artificial propagation of trees the only success met with was with tun, 2,350 plants of which, out of 3,000 planted out, are doing well. On works of utility in opening out the forests but little expenditure was incurred during the year. The forests were not much worked ; only 95,000 bamboos were taken out of the Banjar ; there was no other felling, and only dead wood was removed. Of minor produce, the harra (Myrabolam) crop alone merits notice ; it yielded 1,200 maunds, and with better arrangements may yield in future years considerably more. The total receipts for 1877-78 were Rs. 10,898, and the expenditure Rs. 34,559. The satisfactory feature in these figures is that charges are decreasing. Considerable time must elapse before any great increase of receipts can take place.

There are two reserved forests in the Jubbulpore division, covering an area of 43 square miles. They are both under protection from fire, and during the year were successfully protected at an average cost of Rs. 16-10-8 per square mile,

Only minor produce was removed, and the receipts (Rs. 321) are almost nominal. The charges (Rs. 1,820) far exceeded the receipts; but it is satisfactory to note that the receipts, trifling as they are, are higher than they have been within the last five years; while the charges show an immense reduction.

In the Hoshangabad division there are 387 square miles of reserved forests. These forests are under protection from fire; and the protected area was during the year increased by 30,000 acres. In all 1,66,780 acres had to be protected; and 1,55,383 were successfully protected, at an average cost of Rs. 5-8-3 per square mile. There were several fires, the worst occurring in the Bori forest, due, it is believed, to negligence on the part of the subordinate establishment. Small attempts were made at stocking the forests with teak, bija, saj, tinus and sheshum; but they cannot yet be pronounced promising. The operations of cutting over badly grown teak in the Rajaborari and Saonligarh reserves have been more successful; some 35,000 trees were cut at the small cost of Rs. 1,335, and the crop of shoots coming up is promising. The Chief Commissioner is glad to observe that you are able to write in very encouraging terms of the condition of all the three (Bori, Rajaborari and Saonligarh) forests. The general improvement of growth is marked, and the progress of the forests has been more rapid than you had ventured to anticipate. The yield of the forests has not been great; from Bori only dead teak was taken out; from the cuttings over in Rajaborari and Saonligarh 45,300 poles were got; and bamboos, timber of the unreserved kinds, fuel and grass were removed by purchasers. The receipts were Rs. 25,272; the charges Rs. 11,595. The former show a considerable increase over those of the two preceding years, the latter an even greater decrease.

4. In the Betul division are situated the reserved forests of Bowergarh and Khamapur, which cover an area of 284 square miles. Of this area 50,560 acres were under protection from fire; and successful protection was extended to 44,480 acres, at an average cost of Rs. 7-1-9 per square mile. There were several fires, but they were suppressed with energy. It is doubtful whether in stocking much success has been attained; but you report that in some of the richer parts of Bowergarh the natural reproduction of teak is becoming apparent. The demand on these forests is small, no wood of the reserved kinds has been cut; but the cutting of inferior woods, of bamboos and of grass has been unrestricted. The receipts were Rs. 10,589; the charges Rs. 8,011. The former are steadily advancing, and there has been a progressive rise in them within the last five years. The latter may be said to be stationary.

It has already been mentioned that one of the reserved forests received an accession by the reservation of the Chandgarh and Khandwa forests in the Nimar division. There are now in this division four reserves with an area of 555 square miles, a larger area than in any other division. The extent of forests under protection from fire (207,540 acres) is also the largest in the Province. Unfortunately only 107,560 acres were successfully protected, at an average cost of Rs. 6-5-10 per square mile. No less than five fires occurred in the Kalibhit reserve, being over 60,000 acres; and there were fires also in Chandgarh, the most serious of which is said to have been caused by dacoits to cover their retreat after plundering a border village. From what you say the Chief Commissioner understands that the protective establishment in the Nimar division was too small to cope successfully with the work expected of it. In artificial propagation there has not been much success, nor has the cutting over of badly grown teak in the Punassa reserve yet shown good results. The demand on the forests is chiefly for bamboos and grazing; in addition to these sources of revenue some 20,000 teak poles were removed from Punassa. The receipts of the year were Rs. 15,509; the charges Rs. 10,811. The demand for timber, &c., was slack during the year, and it is very probable that the cessation of the demand for wood for the Railway works combined with high prices is a satisfactory explanation of the small demand.

5. There are three* valuable reserves covering an area of 390 square miles in the Chanda division; and in the Bemaram and Mirkulloo reserves there were 60,211 acres under protection from fire. Only one fire occurred burning over some 10 acres, and the average cost of protection was Rs. 41-10-8. This much exceeds the average

* Bemaram. Mirkulloo. Moharli.

cost in other divisions, but you explain that it is due to the more valuable nature of these forests and to the more elaborate and costly protection which they demand. You also remark that the advantage of the protection afforded is apparent in the vigorous and uniform growth of seedlings. In the area under protection from fire and in parts of Moharli the forests were closed against all cutting by purchasers. In other parts of Moharli the cutting of produce, except of the reserved kinds, by purchasers was allowed. In Moharli 47,000 bamboos were cut departmentally, and those cut by purchasers amounted to 12,51,000. The receipts stand at Rs. 55,012, and the charges at Rs. 66,647. In the Moharli reserve the receipts are steadily rising, and the general decrease is mainly due to the absence of any demand of timber for public purposes.

The area of reserved forests in the Seoni division is 468 square miles. There were 78,890 acres under protection from fire, nearly the whole of which (78,710) was successfully protected at an average cost of Rs. 12-0-6 per square mile. The results of the protection are becoming most marked in the Kurai block. Reproduction from seed is progressing; numerous blanks have become completely stocked, and the young seedling crop presents a fair proportion of the superior species. In the method of working there was no change. From the blocks under protection from fire the removal of dead wood and grass was only permitted. The produce collected by Government agency was 44,600 bamboos, and some 6,800 teak poles, obtained from the cutting over of badly grown teak: private purchasers removed some 10,000 poles, chiefly teak, and some 830,000 bamboos. The remaining demands on the forests were for grass and grazing; the receipts were Rs. 20,742, and since 1873-74 each year has shown an advance in them. The charges were Rs. 18,131.

6. In the Saugor division there are five forests; but their area is small, only 65 square miles. In three* reserves 15,484 acres were under protection from fire; and the total actually protected was 15,134 acres, at an average cost of Rs. 11-3-2 per square mile. One fire only occurred, but it was suppressed before it spread to any extent. Stocking attempted in the Garhakota reserve was fairly successful; and there is considerable general improvement in all the forests These forests when taken up were in such poor condition that the removal of only very little produce from them has been permitted. The receipts were Rs. 3,341: the charges Rs. 6,932; these latter show a steady decline.

* Garhakota. Hathkho Ranjir.

In the Eastern division there are only 12 square miles of reserves. They yielded no timber, and only a trifling revenue from minor produce.

7. The foregoing remarks complete the review of Chapter II. of your report; but some general observations may be made. It must always be remembered that the present reserved forests are only a nucleus of the area which it is necessary to reserve for future demands. To exhaust them now would be to sacrifice the future to the present; and many of them were taken up not because they contained valuable wood, but because they were being worked out, and because the only hope of their revival and restoration lay in closing them to the public and placing them under scientific treatment and management. The year 1877-78 was also generally unfavorable; demands on the forests for public purposes were very small; the demands by private individuals were probably materially affected by the pressure of high prices; the extreme dryness of the year was unfavourable to protection from fire, and also to sowings made to fill up blanks. Further, as you point out towards the close of your report, there were considerable changes in the superior staff, due in a large measure to the deputation of officers on famine duty in Madras. Notwithstanding these adverse circumstances the Chief Commissioner is of opinion that a fair amount of progress has been made during the year. The area of forests the protection of which from fire was attempted, was 702,310. The area actually protected was 5,75,304 acres; the average cost of this protection was Rs. 11-10-11, a smaller average than that of the preceding year; and it is satisfactory to observe that the fires which unfortunately did occur were mostly in forests the protection of which has only lately been attempted. The number of cases in which persons were prosecuted before the Courts for breaches of Forest rules was small. The

actual number was 282 cases involving 568 persons; and in 242 cases and of 498 persons convictions were secured. The small percentage of acquittals seems to indicate that the prosecutions were discreetly ordered. The Chief Commissioner notices that in the Nimar district where some 9 persons through negligence fired the grass of a protected forest, they were fined in the small sum of one rupee, a sentence which seems unduly light. The Chief Commissioner, however, by no means advocates the infliction of severe punishments for breaches of the Forest rules or law; and the new Forest Act (VII of 1878) provides suitable punishments for all forest offences. People in the vicinity of the forests are gradually becoming better acquainted with the rules of management; they are probably already acquiring an apprehension of the future benefits which they will derive from proper conservancy; and with the growth of such knowledge will come a closer regard to, and observance of forest rules. Further, the experiments of stocking and cutting back of badly grown teak are progressing satisfactorily, and the natural reproduction of the forests is promising. In some of the reserves the cutting out of inferior species which will now soon be commenced will enhance receipts; and everywhere the growing stock available for use or sale is augmenting.

8. In the management of the unreserved forests the important administrative change has been adopted of placing them in 10 districts in charge of an officer of the superior Forest staff acting under the orders of the District officer. It is intended that the Forest officer should occupy towards the District officer similar relations to those existing between the District officer and his Assistant or between the District officer and the Superintendent of Police. The responsibility of the District officer will not be diminished nor his general power of control be lessened; but he will in all questions of management, rates on produce levied, &c., be strengthened by the advice of the Forest officer. The part which the Forest officer can take in the management of the unreserved forests will be greatly affected by the extent of the reserves under his control and by the demands which they make on his time; but while it is difficult to definitely state the exact work which the Forest officer may perform and the duties which the District officer may make over to him, the broad principle must be maintained that it is the District officer who is responsible now, as heretofore, for the management of the unreserved forests within his district.

9. At the beginning of the year the area of the unreserved forests was 16,444 square miles,* at its close 16,952 square miles. There was a large addition of 695 square miles in Sambalpur, owing to Government waste lands of that district coming under management as unreserved forests. There was a diminution of the unreserved forests by the 152 miles of forest land in the Nimar district added to the reserves; and the other alterations are clearly explained in the remarks column of Annual Form No. 45.

* Omitting acres.

Before proceeding to comment in detail on the system of management in force in the several districts and on the receipts and charges of the year, two points deserve notice; the first is that in very many districts the systems, as described in Chapter III. of your report, have given place to better ones, the principal of which has been to take as far as possible a fixed amount on all produce removed from the forests, and to trust as little as possible to commutation leases or general licenses. Thus since April last the Chief Commissioner has sanctioned amended systems of forest management for the districts of Nagpur, Wardha and Chanda in the Nagpur Division; for the districts of Seoni, Mandla, Saugor, Damoh and Jubbulpore in the Jubbulpore Division; and for the districts of Hoshangabad, Betul, Chhindwara and Narsinghpur in the Nerbudda Division. The proposals submitted had in all cases been fully discussed by the Commissioners of Division in consultation with the Deputy Commissioners and District Forest officers; and the sole reason why one general system cannot be adopted for the whole Province is that details must vary with the varying conditions of the several districts. As the aid which the Forest officers are giving in the management of unreserved forests is great, you have debited unreserved forests with one-third of the direction charges,

10. It has already been said that since the close of 1877-78 an amended system had been introduced into the Nagpur district. You describe it as "the "best form of license system that has yet been introduced. Its best points are "that the licenses having a fixed value before issue to the vendors, these indi- "viduals must credit Government with the full value according to the fixed "rates of the produce for which they give licenses; while the quantity and des- "cription of produce to which the licenses refer being so represented by colours "and signs as to be easily intelligible to the most illiterate, the possibility of "purchasers being cheated by the vendors is reduced to a minimum." Other features in the year's operations which deserve mention are that a revised forest map has been prepared; information regarding the revenue yielding capacities of the forests has been collected; and the cutting of teak which had proceeded to an injurious extent has been stopped. The receipts were Rs. 15,922, and the charges Rs. 6,936. The former though lower than those realized in 1873-74 are higher than those of subsequent years. The charges have increased, owing to a portion of the salary of the District Forest officer having been debited to the unreserved forests.

In the Bhandara district the old system of commutation is still in force, but the rates on certain articles have been increased; while on others hitherto free, duty has been levied. The revenue of the year is Rs. 46,207, and the charges are Rs. 2,891. The revenue shows a steady increase; and if it be possible professional assistance should be afforded to the Deputy Commissioner to enable him to replace the system of commutation by one of a better kind.

In the Wardha district the yield from grass and grazing has been developed, as the forests are too exhausted to yield much timber. The receipts (Rs. 15,815) increased by 60 per cent, while the charges (Rs. 4,123) were stationary; and it is satisfactory that the enhanced income was obtained without any additional drain on the forests.

The commutation system prevailed in the Chanda district during 1877-78, but has since the close of the year ceased. An enumeration of the commuting house-holds has led to a larger income, which was Rs. 30,342; and the income has been steadily rising since 1874. The expenditure was Rs. 6,658, and shows an increase, owing to the charge on account of supervision.

In the Balaghat district a mixed system of commutation and licenses obtained, and about $\frac{1}{8}$th of the unreserved forests is subject to protective measures. The receipts have steadily risen since 1873-74, and now amount to Rs. 29,750; while the charges (Rs. 5,299) have for three years been stationary.

Some teak forests in the Upper Godavari district will probably ere long be valuable, and proposals for placing them under the direct management of the Forest department are being matured. The receipts of the year were Rs. 3,762, and the charges Rs. 1,247. The receipts of the current year will be larger, as some timber removed in 1877-78 had not been sold and the receipts credited in the accounts of the year.

11. The change of systems made in four districts of the Nerbudda Division has already been referred to. Reserved kinds of timber are only cut with special permission and under special supervision; and control has been exercised in allowing only the poorer kinds of wood being taken as fuel. The income is mainly derived from teak, firewood, building wood and bamboos. It amounted to Rs. 41,227, and the charges were Rs. 11,352. Both income and charges have shown no great variation within the last five years. Useful forest maps are under preparation, and since the close of the year a very simple system of licenses has been introduced. Whether this system will provide for the removal of all the kinds of produce required by agriculturists and towns-people actual experience can only tell.

In the Nimar district the greater attention now devoted to forest management owing to the Deputy Commissioner being aided by the District Forest officer has shown that in some instances Government forests have been encroached

on. This will now be set right. For the realization of revenue the commutation and special license systems continue; but the rates under the latter system have been raised, as they seem unduly low. The receipts* are lower, and the charges† higher than the average of five years; and but a trifling sum was realized on the removal of minor produce. The arrangements under which Rs. 250 worth of produce is as you say supplied to the public pound free of charge and Rs. 113 to the municipality on a one rupee license, should at once cease; especially as the municipality raises a considerable octroi on the wood consumed within the town. The sales of timber &c., were probably affected by the high prices of the year, a matter which has already been noticed in relation to the falling off in the reserved forests' income; and in this aspect the small sum raised by the sale of minor produce is not a matter of regret. Nimar has a considerable proportion of wild hill tribes who largely resort to the forests for forest fruits.

* Rs. 39,718.
† Rs. 14,227

The forests of the Betul district have been rather neglected of late years, and portions of them have been worked out. A better system has been introduced in the current year; the receipts were Rs. 28,445 higher than those of the two preceding years, but far below those of 1873-74 and 1874-75. On the other hand, the charges have risen enormously. The Chief Commissioner is glad to state that the causes of this unsatisfactory state of matters were enquired into by the Officiating Commissioner when marching through the Betul district early in 1878, and that more efficient arrangements have since been made.

A very mixed system, of commutation, farming and licenses, which existed in the Chhindwara district has now ceased. The forests have been overworked; and especially of teak has there been too much cutting, as the rates were excessively low. The new system supervised by the District Forest officer will, it is hoped, soon put matters on a more satisfactory footing. The receipts (Rs. 29,250) are rather small for a district with such extensive forests, and the charges (Rs. 9,851) are high.

Too much teak has also been cut in Narsinghpur, and the income of the year (Rs. 12,059) shows in consequence well. The system of management was a mixed one of licenses and commutation. It has now been superseded. The charges (Rs. 2,829) have for the last five years been stationary.

12. Some forest blocks are under protection from cutting in the Jubbulpore district. It will be necessary to add to them, as they cover only 12,882 acres. There has been some rise in the receipts (Rs. 19,062); and the rise in the expenditure (Rs. 3,286) has already been accounted for on the score of supervision charges.

In the Saugor district arrangements have been made to give forest blocks rest, and a more efficient system of management has been inaugurated. The revenue (Rs. 36,576) is steady; and the charges (Rs. 9,338) have greatly increased. The rates for forest produce have been raised, which will enhance receipts; but this will be counterbalanced by the greater resort of purchasers to private forests, owing to the protective arrangements in Government blocks.

The Deputy Commissioner of Damoh has shown a special interest in forest management, and as he has been long in his district has a thorough knowledge of its forests. Some planting out has been made with fair success in one block reserved from commutation, and the general conservation of the forests is carefully attended to. The receipts (Rs. 37,860) show a large and steady increase; and though the charges (Rs. 8,051) have risen, owing to increased establishments, the surplus is greater than in any preceding year.

A mixed system of commutation and licenses prevailed in the Seoni district; but attempts were made to abolish commutation or restrict the quantity or species of produce which commuters could remove. It was explained in last year's report that in the revenue of 1876-77 some Rs. 10,000 of outstandings which had been recovered had been credited The collections of the present year are Rs. 43,381, which show that the revenue is still on the increase. The charges were Rs. 7,622, and the rise is due to the supervision charge.

Mandla has the very large forest area of 2,118 square miles. It has also hitherto had too small a protective establishment, and has laboured under an inefficient system. Dues were collected in arrears, and often not at all. Some produce was not even taxed on removal. The forests indeed have only escaped greater injury than they have received, owing to their remoteness and inaccessibility. This negative form of conservation is now disappearing, and the opening out of communications has rendered it imperative to inaugurate a better system of management. All this was done by the Commissioner of Division last cold season, and the arrangements made by him were sanctioned after personal inspection by the Chief Commissioner in the current year. The revenue was Rs. 39,587, and is larger than that realised in any previous year. The new arrangements while liberal to the people are more just to Government than the old ones; and the forests of Mandla will in future years yield an income more commensurate to their size and value. The charges were Rs. 7,773, and are swollen by the supervision charges.

13. In the Chhattisgarh division there has been less activity than elsewhere in providing new systems of management. In the Raipur district the license and commutation systems were in force; while in addition the usufruct of small blocks and the right of collection of minor produce were leased out. Commutation has now given way to the license system; but well-to-do people who remove large quantities are required to take out special licenses for fixed quantities. This change of system has yielded satisfactory results, the income being Rs. 48,657 in 1877-78, against Rs. 39,305 in 1876-77; while the charges (Rs. 5,493) have been stationary.

In Bilaspur dues are taken on the amount of produce removed. They amounted to Rs. 14,501 in 1877-78, a satisfactory increase on preceding years. The income is, however, small, and the large extent of private and zamindari forests renders the resort to the Government forests limited. The introduction of fixed money value licenses and enhanced rates, measures proposed by the Deputy Commissioner, will probably secure a larger yield. The charges were Rs. 2,481, and hence for the last four years stood at nearly the same figure.

The Sambalpur Government reserved wastes only in July 1877 came under forest management, and the arrangements decided on were licenses and commutation. The income was Rs. 3,988, and the expenditure Rs. 803.

14. From what has been remarked in the foregoing paragraphs it will be seen that the year has been one of transition from inferior to superior systems of management. Generally speaking, the wasteful systems of commutation, farming and leasing, have given way to the more rational system of licenses for the removal of fixed quantities. The dead level whereby commuters could remove as much as they could or pleased has been abolished; and the new system, while just to all does not benefit the large consumer at the expense of the smaller. Higher rates have been charged above existing rates where too low; and an attempt has been made to assimilate rates in the unreserved forests to those prevailing in the reserves.

Rest has been given to blocks which had been over tasked, and, in not a few districts, blocks have been closed against cutting. All these are hopeful indications; and while Deputy Commissioners and Commissioners of Division have taken a large share in initiating better systems of management, they have been greatly aided by the advice of the District Forest officers.

15. In conclusion, the following figures show the total receipts and expenditure of the year :—

Receipts ...	Reserved forests	Rs. 1,47,798
	Unreserved ,, ...	,, 5,36,112
		,, 6,83,910
Charges		,, 3,17,677
Surplus ...		,, 3,66,233

16. In Chapter IV. you make some remarks of a general character, mainly regarding the cultivation of exotics. The Mahogany tree, the Eucalyptus crebra, the Carob tree, and the Pithecolobium Saman, seem all adapted to the climate of these Provinces.

17. The Chief Commissioner has already noticed the changes which took place in the superior staff. They were unavoidable, but there is no doubt they somewhat marred the efficiency of the year's work. But still the Chief Commissioner thinks he can congratulate you on the labours done and the success achieved ; and these you say are largely due to the exertions of Mr. Thomson and Captain Losack, Deputy Conservators; and Messrs. McKee, Fernandez, and Smythies, Assistant Conservators. To yourself the Chief Commissioner's acknowledgments are again due for the careful supervision and control exercised over all matters relating to your department. He regrets, however, that you could not arrange for a more punctual submission of your report, and directs me to draw your particular attention to this. At the same time, the tardy submission of your report may in some measure be due to the arrangements whereby the accounts are controlled by the Comptroller General from Calcutta not yet working smoothly ; for as late as the 18th September you had to ask that corrections might be made in Annual Form No. 50. This must be remedied in future.

I have the honor to be,

Sir,

Your most obedient Servant,

LINDSAY NEILL,

Offg. Secretary.

No. B
102

FROM

CAPTAIN J. C. DOVETON,

CONSERVATOR OF FORESTS,

Central Provinces.

To

THE SECRETARY TO THE CHIEF COMMISSIONER,

Central Provinces.

Dated Nagpur, the 28th August 1878.

SIR,

I have the honor herewith to forward the annual report on Forest administration for the past year.

The great delay in the submission of this report is due partly to my own absence on privilege leave from 7th April to 4th July, but mainly to the facts recorded in paragraph 302 of the report. Though fully conscious that the delay was unavoidable, I must express my regret for its occurrence.

A list of the papers accompanying the report is attached.

A copy of Forms No. 49 and 50 is now being despatched to the Comptrol ler General for verification, but it may be noted that these statements agree with the totals of those received monthly from the Comptroller General's Office.

CHAPTER I.

SUMMARY OF THE ADMINISTRATION OF THE YEAR 1877-78.

1. During the year under report an important administrative change took place, the unreserved forests in the districts marginally noted being placed in charge of an officer of the superior Forest staff acting under the orders of the Deputy Commissioner. This arrangement necessitated the break-up of the Central, Northern, Pachmarhi and Western Divisions, and a complete re-arrangement of charges.

Nagpur.	Saugor.
Chanda.	Hoshangabad.
Seoni.	Betul.
Jubbulpore.	Nimar.
Mandla.	Chhindwara.

2. The limits of the new divisions formed, correspond with those of the districts above mentioned, except in some cases where it was neceesary to place the reserves in one district in charge of the Forest officer attached to another district. This re-arrangement of charges came into force in July 1877.

3. The area of the reserved forests was increased during the year under report from 2,392 to 2,548 square miles, and that of the unreserved forests from 16,444 to 16,952 square miles. The reservation of the Chandgarh and Khandwa forests and the Government waste lands of Sambalpur coming under management as unreserved forests, are the chief causes of these differences.

4. The demarcation of the Chandgarh reserve was carried out, but that of the Khandwa reserve was not completed before the close of the year. Though the expenditure on this account has been small, the maintenance of boundary lines in the reserves has been carefully attended to, and with rare exceptions these lines and marks are reported to be in good order.

5. From Form 48 it would appear that much greater regard had been paid by the people to the Forest rules, for only 568 persons were prosecuted in 282 cases against 967 in 444 cases in the previous year. These figures are however

deceptive, as a number of persons were permitted to pay enhanced rates for produce removed without authority, and thus escaped prosecution. It is to be regretted that the number of cases thus dealt with has not been reported for all divisions or districts. It is believed that the offences detected were more numerous than in the previous year, but this does not imply greater disregard of Forest rules ; on the contrary, there is every reason to believe that the forest rules are year by year more and more respected. Doubtless more complete organization brings more offences to light; while under the system of granting licenses for fixed quantities of produce, certain acts have become offences which would not have constituted offences under the commutation system. In 1877-78 of 568 persons prosecuted 498 were convicted. The percentage of acquittals was 12·32 against 21·61 in the previous year.

6. In the matter of conservation and improvement no rapid strides have been taken, but as will be seen from the remarks on each division steady progress is nevertheless being made.

7. The excessively dry season of 1877-78 was scarcely favourable to protection against fire, nevertheless as shown by Form No. 47, of 702,310 acres, the protection of which was attempted, 575,300 acres or nearly 5-6ths were successfully protected up to the close of the dry season A number of fires occurred in the protected areas, but most of them were readily suppressed. They were chiefly confined to forests that were for the first time, or but recently brought under protection. Only one fire occurred in forests that had been under protection for a lengthened period.

8. The total expenditure on protecting the area above mentioned was Rs. 10,503, and the average cost per square mile actually protected was Rs. 10-11-4 against Rs. 12-12-10 in the previous year The rate per square mile varied from Rs. 5-3-8 in Hoshangabad to Rs. 53-10-8 in Hathibari in the Eastern Division. The rates were lowest in Hoshangabad, Nimar, Betul and Mandla, and highest in the Eastern and Chanda Divisions. In the Eastern Division the area is very small, while in Chanda a more elaborate system is adopted than in the other divisions.

9. The attempt at the suppression of fires in the unreserved forests of Damoh had up to the close of the official year been successful in a very considerable portion of these forests.

10. Experimentally the grazing of cattle was allowed in part of the protected areas in Saonligarh and Rajaborari, and though fires did occur in these blocks they were in no way attributable to this circumstance. From the remainder of the area under protection from fire cattle were excluded ; while in the unprotected portions of the forests grazing without restriction was permitted on payment.

11. Much has been done for the improvement of portions of the Punassa, Saonligarh, Rajaborari and Satpura reserves, by cutting out badly grown teak. The season of 1877-78 was with rare exceptions especially favourable for the development of shoots from the stool, and a very vigorous growth was obtained. The favourable result from similar operations in previous years is gradually becoming more apparent.

12. Sowings to fill up blanks have been extended, and though for this class of improvement the season was extremely unfavourable moderately good results are expected. During the year under report about 1,170 acres were thus sown with teak and other good species. As an experiment, 3 acres were also planted with tún in the Banjar, where also, though with but poor results, Katung bambu was sown in nurseries with the intent of finally planting out on the banks of the small rivers. A bambú nursery was also formed at Telunkheri, and has furnished a good stock of plants, with part of which 12 acres of land has since been stocked. Another nursery of 1½ acres formed in Hathkho contains a goodly stock of bambú plants, while on 4 acres in Garhakota bambú was experimentally sown in lines 6 feet apart.

13. With the view of increasing the proportion of teak in the natural forests, young trees of this species were planted in cleared lines 36 feet apart on an area of about 60 acres in Goverdhun and Taroba. In the unreserved forest also near Damoh there was some sowing and planting on a small scale, which is reported as successful.

14. In most of the tracts to which protection from fire has been extended for several years, the improvement that is taking place is year by year becoming more and more apparent ; while the limited extent to which the reserves as a whole are being worked is resulting in an enormous increase in the growing stock that will gradually become available for conversion into money.

15. The general conservation of the unreserved forests is gradually receiving more and more attention. The most systematic work recorded under this head is the provisional sub-division of the south-east forests of Saugor into blocks and compartments, each compartment to be closed for 12 years after working. In Nimar, Balaghat and Jubbulpore a portion of the forests is closed against cutting ; while in Damoh the general conservation of the forests is being carefully attended to. The commutation system is gradually being abolished, payment for the produce actually taken being required instead,—a change which must tend to check waste and consequently to the preservation of the forests.

16. The yield of the reserved and some of the unreserved forests is given in commenting on the administration of each district or division. Excluding Bowergarh and Khamapur, for which no return has yet come in, and the produce removed from which is comparatively trifling, the yield of the reserves was as follows :—

Sal timber	...	11,819	cubic feet	=tons	236·4
Teak timber	...	5,413	„	=tons	108·5
Teak poles	...	80,713			
Other kinds, logs	...	152			
„ poles	...	20,428			
Small pieces for agricultural purposes	...	45,382			
Bamboos	...	27,02,176=	about	tons	10,808
Bamboo baskets and mats	...	91,160			
Fuel	...	14,303	cart loads,	tons	4,767
Grass	...	24,629	„	tons	8,209

Of the reserves, 18 with an area of 446 square miles were closed against cutting ; while on the others the demand is as yet small and confined to particular portions of the forests.

17. The departmental timber operations were on a very limited scale. In the Mandla Division 11,819 cubic feet of sal and in the Chanda Division 87,000 cubic feet of teak timber were brought on stock. Owing to the unusual fall of the Nerbudda, with the exception of a few scantlings, no timber reached market from the Mandla Division ; while in the Chanda Division, owing to the dullness of the market, stock was kept back. The saw machinery at Ahiri continued to work smoothly, and was employed in converting material that could not profitably be sent to market in the rough.

18. Owing to the different methods of working in different parts of the Provinces, and the fact that most of the material collected by Government agency is dead-wood, with the felling of which the department has had nothing whatever to do, it has not been possible to compile a form for the Provinces corresponding with Forms 53 and 54 (suggested) of the Code. The timber brought on stock is exhibited in Form 55 ; while an account of all timber and other stock with opening and closing balance receipts and issues is to be found in Form No. 56.

19. Form 58 shows the charges against the timber operations of the year, and Form 57 the realizations from timber sold at depot. It is scarcely possible,

however, to draw any conclusions from the forms, as during the year very little timber came to the selling depots. In Form 59 is given the cost of and revenue derived from timber supplied to public departments.

20. Good work has been done in opening up the Banjar river to Mocha, from which place timber can now be transported by water to Mandla without any material difficulty.

21. The use of licenses having a fixed money value before issue to the vendors is becoming more general, and will render it impossible for license vendors without being detected to exact more than the fixed rates from purchasers or to credit Government with less than they receive; while the use of colours and symbols to distinguish the quantity and description of produce removable under each license will render the licenses intelligible to all purchasers.

22. The capital which the demand for grain brought into the Province may have tended to increase the receipts from some portions of the forests; the high prices of food-grain in other parts of the Province have on the other hand checked the demand for forest produce, while the high rates charged for carriage and the greater temptations of the grain trade materially interfered with trade in forest produce, and on the whole conditions have been far from favourable to the development of the revenue. Nevertheless both the gross and net receipts exceed the average gross and net receipts for the past five years.

23. The receipts and charges of the year were as follows:—

Receipts				Rs.	6,83,910
Charges	"A"	Rs.	1,78,400		
,,	"B"	,,	1,39,277		
				,,	3,17,677
			Surplus...	Rs.	3,66,233

24. Form 52 shows the outstandings on account of sales to be Rs. 1,369 more at the close than at the commencement of the year, while the outstandings on account of contractors and disbursers were Rs. 373 less at the close of the year. The value of stock of all kinds except buildings (not previously exhibited) was Rs. 1,862 less at the close of than at the commencement of the year. Allowing for these differences the book value of the year's transactions was Rs. 6,82,534. It must, however, be admitted that some heavy reductions in stock rates have been made by the Conservator, and the actual quantity of stock now available for sale is greater.

25. Debiting the reserves with two-thirds and the unreserved forests with one-third of the direction B. charges, the charges and receipts for the reserved and unreserved forests separately stand thus:—

	Reserved Forests.		
Receipts	...	Rs.	1,47,798
Charges	...	,,	1,78,950
	Deficit ...	Rs.	31,152
	Unreserved Forests.		
Receipts	...	Rs.	5,36,112
Charges	...	,,	1,38,727
	Surplus ...	Rs.	3,97,385

26. The deficit against the reserves results chiefly from the Mandla Division, in which one reserve only is being worked for dead wood and bambú; while all the reserves are, with the exception above noted, closed against cutting. The Chanda Division also shows a deficit of about Rs. 16,000, but this is more than

counterbalanced by the increase in the value of stock on hand, which will now come in to meet a large demand that has occurred. The reserves of Seoni, Hoshangabad, Betul and Nimar have all returned a moderate surplus. The receipts and surplus resulting from the unreserved forests is the largest yet obtained, and shows that increased expenditure on account of establishment has been well laid out.

27. As frequently remarked on previous occasions, the transactions of one or two years scarcely give a correct idea of progress in the development of the revenue.

28. The following Statement gives the result of the three periods of 5 years each from 1863-64 to 1877-78 :—

	Receipts.	Expenditure.	Surplus
	Rs.	Rs.	Rs.
1863-64 to 1867-78	10,79,525	6,18,718	4,60,807
1868-69 to 1872-73	23,20,355	15,54,759	7,65,596
1873-74 to 1877-78	33,00,207	15,55,434	17,44,673

These figures speak for themselves. There is every reason to hope that the succeeding 5 years will show a further increase of at least 50 per cent over the gross and net revenue of the department.

CHAPTER II.

RESERVED FORESTS.

Mandla Division.

Area and boundaries.

29. The reserves included in this division are :—

		Square miles.	Acres.
Jagmandul	...	38	183
Choharigogarh	...	2	380
Banjar valley	...	77	444
North Phen	...	10	35
South Phen	...	71	527
Motinalla	...	2	378
Keolikhapa	...	9	536
Topla	...	70	...
Barela	...	11	113
Airi	...	3	230
	Total ...	297	266

30. There has been no change in the area of the reserves, and the trifling differences exhibited in Form 45 are only the result of closer computation.

31. The expenditure on line clearing for demarcation purposes has been nominal, 5 out of the 9 reserves being under protection from fire, while parts of the boundaries were kept clear by the ordinary establishment. In the South Phen and Motinalla, 97 boundary marks were repaired at the trifling outlay of Rs. 9-5-3. The boundary marks have on them serial numbers, which are carefully maintained.

Protection and Improvement.

Forest offences.

32. Breaches of Forest rules have not been numerous in the reserves of this division. The chief offences were the careless or unauthorised use of fire in or near the reserves. There were in all six cases, none of which were very serious, and there were no prosecutions.

Protection against fire

33. Protection from fire was not extended, but was continued in Jagmandal, Choharigogarh, Barela, the Banjar and Motinalla reserves.

34. The total area under protection was 84,471 acres, of which 78,919 were successfully protected. There appears to have been some carelessness on the part of subordinates which led to the fires in the Banjar. It is, however, fortunate that the fires that did occur were chiefly confined to grass lands or the hilly portion which contains no sal. The cost of fire protection was as follows :—

	Total.			Cost per acre.			Cost per square mile.		
	Rs.	a	p.	Rs.	a	p	Rs	a	p.
Banjar valley ...	481	5	1	0	0	2·07	6	14	4
Motinalla ...	52	12	6	0	0	7·20	24	0	0
Jagmandal ...	351	2	1	0	0	2·77	9	3	8
Choharigogarh ...	67	8	9	0	0	7·80	26	0	0
Barela ...	112	6	9	0	0	3 01	10	6	0
Total ...	1,065	3	2	...			...		
Average for the Division ...				0	0	2·58	8	9	7

The rates contrast favourably with those for former years.

Grazing.

35. Grazing has been allowed in the North and South Phen, Topla, and the Keolikhapa reserves. In the forests under protection from fire, no grazing is permitted.

Artificial propagation of forest trees.

36. As an experiment in the artificial filling up of blanks with sal, seed of this species was sown in prepared lines, and also under bushes of the wild dwarf date In the open lines the seedlings came on best at first, but subsequently required considerable care to protect them from frost and the sun's rays,—an end which was only secured by covering them with grass raised above them by forked stakes and cross pieces. Where this course was not resorted to the seedlings died off rapidly.

37. The cultivation of sewan, tún and the Katung bambú was also attempted in open parts of the same forest. The experiments were on a very small scale, as it was not known what enemies might have to be encountered. 3,000 tún were planted out, of which 2,350 survived and are doing well; the remainder were killed by frost. The expenditure amounted to Rs. 61-9-0, and as the young plants when I saw them in the cold season ran from 18 inches to 3 feet in height, there is reason to believe that planting 6 feet apart in lines 15 feet apart, a plantation of this species can be raised for about Rs. 12 per acre. The sewan failed owing to the attacks of hares and deer, the latter destroying the leading shoots, the former eating the bark round the base of the stems. A goodly supply of Katung bambú seed was furnished to this division, but owing to the ravages of rats but a poor supply of seedlings was obtained. Here the short rain-fall was the chief cause of failure, for in an ordinary monsoon the seed would have germinated too rapidly for much harm to be done by rats. Considering how rare are the opportunities of obtaining seed of this species, it is much to be regretted that better results were not obtained.

38. There was a small expenditure of Rs. 356-15-3 on the Khodna rapid in the Nerbudda, the only really difficult passage for timber transport between Sakri and Goarighat. The contemplated improvements were not completed, when a sudden rise in the river in the hot season of 1877 stopped the work, which it has not been possible since to finish. The actual result of this improvement has not yet been tested, as after the slight rains of 1877 the Nerbudda quickly fell to a low level and no large timber was rafted down.

Works of utility for opening up the forests.

39. The improvement made in the Banjar referred to in paragraph 82 of the report for 1876-77 caused a considerable reduction in the cost of transport over this part of the river. The past season's rafting work rendered apparent further improvements that could be made, and these were commenced after the rains of 1877, but were not completed before the close of the year. The improvements effected consist of cuttings and walls of loose but heavy stones, to give a straight and uninterrupted course to the current when the river is at the proper level for rafting. The present monsoon promises to test severely the efficacy of these retaining walls, which were only tried on a small scale in the previous year.

40. The total expenditure up to the close of the year on the rapids of this river is given in the following Statement :—

Section.	Rapid Number.	Name.	Expenditure.								
			1876-77.			1877-68.			Total of close of 1877-78.		
			Rs.	a.	p	Rs.	a.	p.	Rs.	a.	p.
I.	1	Mocha	385	14	1	894	6	5	1,280	4	6
	2	Mocha	27	5	0	...	...	...	27	5	0
	3	Mocha	325	0	6	..	..	...	325	0	6
II.	1	Ramdhar	139	14	9	100	6	11	240	5	8
	2	Tuthridhar	212	13	6	117	14	9	330	12	3
	3	Dukridhar	211	7	9	236	8	11	448	0	8
	4	Kanhardhar	129	9	4	164	0	9	293	10	1
	5	Baiherdhar	85	10	9		...	...	85	10	9
		Total ..	1,518	11	4	1,513	5	9	3,031	1	5

41. The road from Khisli to Khana in the Banjur forest was repaired and a new line over the ghat has been projected and is now under consideration.

Yield and working.

42. With the exception of 95,000 bambús taken out of the Banjar, there has been no felling in the reserves of this division, and the timber collected was the yield of dead wood only. 11,782 cubic feet of sal were collected in the Banjar forests, and upwards of 4,000 cubic feet of teak from Chohariigogarh.

43. Owing to the rafting depot being changed from Tilri to Mocha, 6 miles higher up the Banjar, and no timber having been floated down from Sakri, a comparative statement of transport charges cannot be given. The land carriage rates have not come down, owing to the high price of grain; but rafting from Mocha to Mandla cost only Rs. 0-1-7 per cubic foot against Rs. 0-2-2·5 paid in the previous year for transport from Tilri, which is 6 miles nearer.

44. A number of small scantlings were landed at Goarighat from the Banjar forest at a trifle under 8 annas per cubic foot, including the cost of conversion.

45. About 1,200 maunds of hurra were collected from the reserves, the greater portion of which has been sold off at a profit of about annas 15 per maund. It is believed that but a small portion of the yield was actually collected, at least in some of the forests; and though it must be admitted that the past year's crop was an exceptionally good one, there is reason to hope that with more systematic arrangement for collection the out-turn will increase considerably.

Minor produce.

Financial results.

46. The following Statement shows the receipts and charges on account of the reserves of the division for the past five years :—

		1873-74.	1874-75.	1875-76.	1876-77.	1877-78.
		Rs.	Rs.	Rs.	Rs.	Rs.
Jagmandal	Receipts	6,993	258	...	...	2,219
	Charges	3,449	3,686	3,545	3,890	3,135
	Surplus	3,544	...	...	...	...
	Deficit	...	3,428	3,545	3,890	916
Chohariyogarh	Receipts	...	...	...	279	5
	Charges	1,792	992	2,457	1,070	904
	Surplus	...	...	...	...	...
	Deficit	1,792	992	2,457	791	889
Banjar valley	Receipts	...	...	4,587	2,715	7,286
	Charges	...	...	17,964	25,375	21,583
	Surplus	...	...	...	...	...
	Deficit	...	...	13,377	22,660	14,297
North Phen	Receipts	...	...	...	380	150
	Charges	...	...	2,080	643	848
	Surplus	...	...	...	...	...
	Deficit	...	...	2,080	263	698
South Phen	Receipts	...	...	...	...	662
	Charges	...	...	2,105	643	2,559
	Surplus	...	...	...	...	...
	Deficit	...	...	2,105	643	1,897
Mothinalla	Receipts	1,387	...	...	...	106
	Charges	25,658	16,812	2,080	723	564
	Surplus	...	...	...	...	...
	Deficit	24,271	16,812	2,080	723	458
Keolikhapa	Receipts	...	...	...	68	61
	Charges	...	...	2,089	669	735
	Surplus	...	...	...	...	...
	Deficit	...	...	2,089	601	674
Topla	Receipts	...	...	38,415	9,871	250
	Charges	...	...	20,014	917	2,349
	Surplus	...	...	18,401	8,954	...
	Deficit	...	...	...	..	2,099

		1873-74.	1874-75.	1875-76.	1876-77.	1877-78.
		Rs.	Rs.	Rs.	Rs.	Rs.
Barela	Receipts	...	...	18	39	154
	Charges	1,182	2,802	2,871	2,097	1,493
	Surplus	...	...	...	...	...
	Deficit	1,182	2,802	2,853	2,058	1,339
Airi	Receipts	...	...	...	...	5
	Charges	...	...	...	546	389
	Surplus	...	...	...	...	...
	Deficit	...	...	...	546	384
Total	Receipts	8,380	258	43,020	13,352	10,898
	Charges	320,81	24,292	55,205	36,573	34,559
	Surplus	...	...	...	...	...
	Deficit	23,701	24,034	12,185	23,221	23,661

47. The reserves of this division are the source of a greater present deficit than any other forests in the Provinces. From Jagmandal, Chohariqogarh and Airi no revenue can as yet be expected, except a small sum from minor produce. Barela can give scarcely any return until the adjoining unreserved forests are brought under proper management; while only one by one can the sal forests be made to cover their expenses, and it must therefore be some years before each of these forests shows a profit.

48. As a commencement towards the development of the revenue the Banjar forest has been taken in hand, and though the operations of the first three years were not very successful, a satisfactory reduction of charges has been effected, and there is now reason to hope that this forest will soon begin to return a fair profit, but until then little or nothing can be done to develope a revenue from the other sal forests, which are less accessible to the present demand.

Jubbulpore Division.

Area and boundaries.

49. The reserves in this division are Bijeragogarh and Singrampur. Their area, which has undergone no change, is square miles 43, acres 223.

50. Where the boundary is not formed by rivers, cleared lines are maintained. On the repairs of the masonry pillars there was a trifling expenditure of Rs. 1-4-0.

Protection and Improvement.

Forest offences

51. There were no prosecutions for breach of Forest rules. The removal of a small quantity of lac was the only offence detected, and there is no reason to suppose that others were committed.

Protection against fire

52 Protection from fire and the exclusion of cattle are the only measures at present adopted for the improvement of the forests, and these have been complete up to the close of the dry season 1877-78. The total cost of, and the rates at which fire protection was secured, are as follows :—

	Total cost.			Cost per acre.			Cost per square mile.		
	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.
Bijeragogarh ...	566	0	3	0	0	5·12	17	1	0
Singrampur ...	170	13	0	0	0	5·00	16	10	8
Total...	736	13	3	...			...		
Average...	...			0	0	5·09	16	10	8

The trifling difference in the cost of protection per square mile is due to the fact that the Bijeragogarh forests are in close proximity with Rewah territory, which necessitates closer watch and guard.

Yield and Working.

53. Under this head there is nothing to record, as only a small quantity of minor produce has been taken from the reserves.

Financial results.

54. The following Statement shows the receipts and charges to credit and debit of the reserves of the division for the past 5 years :—

		1873-74.	1874-75.	1875-76.	1876-77.	1877-78.
		Rs.	Rs.	Rs.	Rs.	Rs.
Bijeragogarh	Receipts	149	288	41	88	187
	Charges	7,086	7,084	4,223	3,494	1,456
	Surplus	...	...	...	...	...
	Deficit	6,937	6,796	4,182	3,406	1,269
Singrampur	Receipts	29	...	...	32	134
	Charges	1,339	3,140	2,931	1,342	685
	Surplus	...	...	...	...	...
	Deficit	1,310	3,140	2,931	1,310	551
Total	Receipts	178	288	41	120	321
	Charges	8,425	10,224	7,154	4,836	2,141
	Surplus	...	...	...	...	...
	Deficit	8,247	9,936	7,113	4,716	1,820

55. As may be seen from previous remarks, no revenue of any importance is as yet expected from these forests. The actual receipts have been trifling, and call for no special remark. In 1874-75 the charges were heavy on account of superior officer's pay, but allowing for this it will be observed that the charges against these forests have been steadily brought down ; and when it is remembered that this has been done without any sacrifice under the head of conservation, the result must be considered satisfactory. The progress of time whereby protection has been facilitated, and the fact that the people residing in the vicinity of the forests have gradually become reconciled to the protective measures in force, have helped in bringing about this end; but it is mainly due to closer and more strict control of the expenditure and the adoption of more economical methods of executing work.

HOSHANGABAD DIVISION.

Area and boundaries.

56. The reserves included in this division are Bori, Saonligarh and Rajaborari. No new reserves were formed, and there was no change in the area of those above mentioned. The total area of the reserves is square miles 387.

57. On the maintenance of boundaries, which are all clear to a width of 40 feet, no special expenditure was necessary, except where the burning off of the grass was carried out for protection from fire.

Protection and Improvement.

Forest offences.

58. There were no prosecutions for breach of Forest rules, but 221 cases of petty forest offences were detected, in which 227 persons were involved. In the case of produce removed or cattle grazed without licenses, double the ordinary rates were levied, amounting in all to Rs. 270-14-0.

Protection of forests from fire.

59. In continuation of the arrangements previously projected for bringing all the more accessible parts of Rajaborari under protection from fire, the area under protection was increased by about 30,000 acres. The areas attempted to be protected and those actually protected were as follows :—

		Attempted. Acres.	Actually protected. Acres
Rajaborari	...	94,260	90,490
Saonligarh	...	48,840	42,813
Bori	...	23,680	22,080
	Total...	166,780	155,383

Charges against the results are as follows :—

		Total cost.			Per acre.			Per square mile.		
		Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.
Rajaborari	...	425	14	8	0	0	0·90	3	0	0
Saonligarh	...	243	4	0	0	0	1·09	3	10	1
Bori	...	615	2	0	0	0	5·34	17	12	9
Total	...	1,284	4	8	...			...		
	Average	...			0	0	1·57	5	3	8

The rates in Saonligarh and Rajaborari are decidedly low; but here is in force a less elaborate system, which is not thought expedient to apply to the more productive and valuable forests.

60. Several fires occurred in the tracts under protection, but the one most to be regretted is that in Bori, which burnt over 1,600 acres in a rich part of the forest. The origin of this fire is not known with certainty, though it is suspected that it resulted from negligence, and there is no doubt that the subordinates are responsible, at any rate to a certain extent, for its spread.

61. Reporting on the fire in Bori the Assistant Conservator remarks apparently with some surprise that it caused little or no damage to the standing crop, and assigns as a reason the high wind that prevailed at the time. That the fact should be attributable to this cause is scarcely probable, but without close examination soon after the fire it would not be possible with certainty to assign it to any other circumstance.

62. The fires that occurred in Saonligarh and Rajaborari were doubtless due to imperfect organization in connection with the work, and there is every reason to expect that the lessons taught by them will lead to more successful protection of these reserves during the next and succeeding seasons.

Grazing.

63. The grazing of cattle in the Bori forest continued to be prohibited as in previous years. In Rajaborari and Saonligarh, however, cattle were allowed to graze in all unprotected areas, and also in a large portion of the area under protection from fire. The tracts in which sowings had been made, or where the cutting over of teak had been, and is being carried on, were strictly protected against cattle.

64. In Rajaborari about 217 acres were sown broadcast with tinus, saj, and bija; over part of this area teak was also sown in 71,600 prepared plots 6 feet apart in lines 12 feet apart. The cost of these sowings was only Rs. 65-6-0. As was expected, the teak seed did not germinate in the rains of 1877, but will probably come up freely this year. The bija and tinus germinated freely, but it is not yet known how the young plants stood the hot weather.

Stocking.

65. In Bori sowings were made on a small area. Bands 3 feet wide and 20 feet apart having been ploughed, were sown with teak, and the whole area broadcast with sheshum, tinus and bija.

66. In Saonligarh 100 acres, 40 at Dhekna and 60 at Charkhera, were also sown with teak, bija, saj, tinus and sheshum. The teak was sown in the same manner as in Rajaborari, and is now germinating in the rains of 1878. The other seeds, which were broadcast, germinated in the rains of 1877, but the results cannot as yet be recorded.

67. This work was carried on within limited areas in three different localities, viz. on the Machuk and on the Ganjal in Rajaborari and at Dhekna in Saonligarh. These operations have now been in progress for three years. In the first year the work was badly done; but the labourers employed, as well as the subordinates, have gradually become more expert; and though during his last tour, the Conservator had occasionally to find fault with the selection of trees made, the work has on the whole been fairly well done. It is estimated that the cutting extended over 3 square miles, but of course in portion of this area there was for various reasons no cutting at all. The number of trees cut was 35,000, and the cost Rs. 1,335, which has been debited against revenue. The young coppice shoots from the previous cutting have, with some exceptions, come on well; the exceptions being in the first cutting only. Shoots from the cutting of 1876-77 average on the good soils over 7 feet, on the medium soils about 5 feet, and on the poor soils 3 feet, but some very fine species were observed even on poor soil. One very old unsound and irregular stool standing on sheet rock with only about 9 inches of soil threw a shoot, which in spite of portion of the stem being deprived of its bark while growing, measured at the end of the first season's growth 11 feet 11 inches in height and 9½ inches in girth at the base. In the cutting of the same year shoots of from 9 to 11 feet were not uncommon, and in many cases several such shoots were to be found round one stool. Many instances of the young shoots having forked at an early age were noticed, but this will be to some extent rectified by checking the weaker shoots. One or two instances were noticed of the young shoots having commenced to develope independent roots at the close of their first growing season. Considering the nature of the crop prior to these cuttings, these operations promise to give most satisfactory results.

Cutting over of badly grown teak.

68. Here also some experiments have been tried in the same manner as in the Mandla Division with the viewof increasing the yield of hurra.

Protection of hurra.

69. As regards general improvement in Bori there is nothing special to record in this report, as the changes that are going on and the improvement that is taking place in this forest have been recorded in previous reports of comparatively recent date. Regarding Saonligarh and Rajaborari, however, very little has hitherto been written (perhaps owing to their being formerly classed among the poorer forests), nor has the improvement which has been going on in many parts of them been until lately fully realized.

General remarks.

70. At the time of reservation, such was the apparently hopeless condition of the more accessible parts of Rajaborari that, in spite of their favourable position, they narrowly escaped, being discarded as useless and unprofitable. It could not be expected that such tracts would in so short a time be converted into productive forests, but the change that they have undergone, and the increase in value of the

growing stock in them is most satisfactory. It is true that a considerable portion of the teak is badly grown and will have to be cut over, but wherever this has been done a promising crop of shoots is coming up, and there is a fair number of straight well grown trees which will grow on, and at any rate attain the dimensions of small timber within a comparatively short time.

71. In Saonligarh the increase in the standing crop of teak, both as regards the number and size of the trees, is most encouraging. In parts there are many badly grown trees which will have to be cut over, but there are numerous small fully cropped blocks in which the proportion of teak is large, and the growth straight and very promising; such pieces of forest are generally to be found on the sites of old "dhyas." The teak that existed as small poles at the time the forest was first reserved has made most satisfactory growth, vigorous tall straight poles of from 18 to 24 inches in girth being now comparatively common; a fair proportion of trees of from 2 to 3 feet, and a few of from 3 to 4 feet girth are also to be found, though these are in their future less promising than those of smaller dimensions, which will, as a rule, attain a much greater height.

72. There is not that absence of seedlings that might be expected in a forest that until lately had not been protected from fire, and the number of saplings that are slowly but steadily growing on is striking to any one acquainted with the condition of the forest as it was 14 years ago. In some places the general improvement of the growth, especially of teak, is marked by the natural clearing off of lower branches.

Yield and Working.

73. The Bori forest has remained altogether closed against all cutting, and only a very small quantity of dead teak was taken from it.

74. From the cutting over of badly grown teak in Rajaborari and Saonligarh 45,300 poles were obtained. In these two reserves, except in the areas under protection from fire, no restriction was placed on the cutting of bambús, unreserved woods, grass and fuel, by purchasers.

75. The following Statement exhibits the total yield of the reserves in the more important products :—

		Number.
Teak poles	...	45,313
Tinus poles	...	6,344
Khair, Tendu and Dhaora poles	...	1,020
Poles of other species	...	7,062
Khair and Hurdù logs	...	74
Bambús	...	214,685
Firewood, cart loads	...	1,700
Grass, pullahs	...	1,350,000

The foregoing figures do not, however, include the produce consumed by the inhabitants of squatter villages within the reserve.

Financial Results.

76. In the following Statement are exhibited the receipts and charges for the past five years :—

		1873-74.	1874-75.	1875-76.	1876-77.	1877-78.
		Rs.	Rs.	Rs.	Rs.	Rs.
Rajaborari	Receipts	13,298	13,815	11,307	12,808	17,242
	Charges	4,758	5,499	8,528	10,104	6,843
	Surplus	8,540	8,316	2,779	2,704	10,399
	Deficit	...	...	...	...	...
Saonligarh	Receipts	6,294	6,360	4,259	5,643	7,652
	Charges	5,325	4,009	4,184	3,584	2,563
	Surplus	969	2,351	75	2,059	5,089
	Deficit	...	...	...	..	...
Bori	Receipts	3,385	2,780	418	235	378
	Charges	8,823	5,107	3,725	1,405	2,189
	Surplus	...	...	...	...	...
	Deficit	5,438	2,327	3,307	1,170	1,811
Total	Receipts	22,977	22,955	15,984	18,686	25,272
	Charges	18,906	14,615	16,437	15,093	11,595
	Surplus	4,071	8,340	...	3,593	13,677
	Deficit	...	...	453	...	...

77. When it is remembered that the receipts for 1873-74 and 1874-75 were increased by sale to the "Holkar State Railway" of sleepers, the increase in the gross receipts must be considered satisfactory. Though the receipts are still small, they are steadily increasing, and they will continue to increase slowly but steadily until some of the stock that has grown up under conservation attains the dimensions of small timber, when the receipts must run up considerably. The fluctuations in the expenditure are almost entirely due to differences in the control charges, which depend on the rank of the Divisional Officers, but even allowing for this the net receipts are progressing in a most satisfactory manner.

BETUL DIVISION.

Area and Boundaries.

78. The reserves included in this division are Bowergarh and Khamapur, the area of which remains unaltered.

79. The boundaries of the reserves are defined by wooden posts surrounded by heaps of stones and cleared lines 40 feet wide, on the maintenance of which no special expenditure was necessary during the year.

Protection and Improvement.

Forest offences.

80. There were 45 cases of breach of Forest rules, in which 100 persons were involved. In one instance only was prosecution considered necessary, and in this conviction was obtained. In most of the other cases payment of double dues was required.

Protection from fire.

81. The following figures represent the work of the year under this head :—

	Area protection of which was attempted.	Area actually protected.
	Acres.	Acres.
Bowergarh	34,560	31,360
Khamapur	16,000	13,120
Total ...	50,560	44,480

The charges against fire protection were :—

	Total cost.	Average per square mile.	Average per acre.
	Rs. a. p.	Rs. a. p.	
Bowergarh ...	419 9 1	8 9 0	0-0-2·57
Khamapur ...	73 8 6	3 9 0	0-0-1·07
Total ...	493 1 7	...	...
Average for the Division ...		7 1 9	0 0 2·13

The higher rate in Bowergarh is chiefly due to the fire lines being almost entirely artificial, and to the more hilly nature of the country. The expenditure is, however, moderate even in this forest.

82. Within the protected blocks several fires occurred, but the establishment displayed energy in suppressing them. There is every reason to expect that protection will gradually become more complete without any material increase of expenditure.

Grazing.

83. The grazing of cattle has been allowed in all the unprotected portions of the forest.

Sowings.

84. In Khamapur 177 acres were sown with teak and other good species in prepared lines. The teak did not germinate during the rains of 1877, and the other species failed owing to the short rain-fall. The teak will doubtless give a good crop during the current rains. At Bakaburda in Bowergarh 35 acres were sown in prepared lines 3 feet wide and 20 feet apart, and 15 acres were sown in the same manner at Jamnagri in the same forest. The seed sown was teak with a mixture of other species. The sowing at Jamnagri is pronounced by the Divisional Officer a perfect success. The result of the sowing at Baka is not known.

Production of Hurra.

85. The high table-land in Bowergarh is well adapted for the production of "Hurra," and instructions have issued to encourage the growth of this tree wherever found in this locality. Experiments are also being tried with the view of rendering individual trees more productive.

General improvement.

86. In some of the richer parts of Bowergarh the natural reproduction of teak is now becoming apparent. In many places are to be found young teak plants in fair numbers more or less suppressed, but still struggling on till the dying of a bambú clump opens out a course to their upward growth. In the plantation at Baka the teak is coming on well. The most backward trees which are on high ground, and notably those with a northern aspect, are now beginning to make rapid strides.

Yield and working.

87. The demand on these forests is as yet extremely limited, and it has not been necessary to restrict the cutting of bambús or inferior wood by purchasers. No wood of the reserved kinds has been cut ; grazing grass and bambú, also

fuel for the consumption of the squatter villagers residing within the forest, together with a small amount realized on account of land under cultivation, have been the chief source of revenue.

Financial Results.

88. The following Statement gives the receipts, charges, surplus or deficit during the past 5 years for the division and each reserve separately :—

Year.		1873-74.	1874-75.	1875-76.	1876-77.	1877-78.
Bowergarh	Receipts ...	Rs	Rs.	Rs.	Rs.	Rs.
	Charges ...	1,977	2,763	2,928	3,077	3,287
	Surplus ...	2,621	3,197	4,408	3,178	3,050
	Deficit ...	...	...	...	...	237
		644	434	1,480	101	...
Khamapur	Receipts ...					
	Charges ...	5,762	5,113	5,713	6,091	7,302
	Surplus ...	3,090	4,844	4,009	4,743	4,961
	Deficit ...	2,672	269	1,704	1,348	2,341
		...	...	...	...	...
Total	Receipts ..					
	Charges ..	7,739	7,876	8,641	9,168	10,589
	Surplus ...	5,711	8,041	8,417	7,921	8,011
	Deficit ...	2,028	...	224	1,247	2,578
		...	165	...	...	...

The two reserves in this division are not expected at present to yield any considerable revenue. Still the receipts continue to rise slowly but steadily, and with continued attention to the minor sources of revenue they will probably still increase, till the demand comes, as it certainly will, for the more important products the forests are capable of yielding. There has been a slight increase in the charges on account of protection and improvement during 1877-78, but the fluctuations in the charges are mainly due to the class or grade of the controlling officers in charge.

NIMAR DIVISION.

89. Within the Nimar Division as at present constituted are the reserves of Kalibhit, Punassa, Chandgārh and Khandwa. On Chandgarh and Punassa as the productiveness of these forests improves it is expected that the demand for export, for which there are great facilities, will steadily increase. Kalibhit is mainly destined to meet the demands of the Charwa Ilaka, when that tract of country shall be more fully populated; and the Khandwa reserve alone is exclusively destined to supply local wants in Nimar. A full report on Chandgarh forest was submitted with this office No. B-78, dated 18th July 1876, and a report on the Khandwa reserve with this office No. B-23 of 11th May 1877.

Area and Boundaries.

90. The Chandgarh and Khandwa reserves, with their respective areas of 96 and 56 square miles, were formed during the year. In the area of Kalibhit and Punassa no change has taken place, and the total area of reserves in this division is now 555 square miles and 200 acres.

Demarcation of Chandgarh

91. In the south-east corner of Chandgarh the correctness of the boundary as fixed by the Forest and Civil officers is disputed by the Chandgarh Jaghirdar, who claims a portion of the area in this corner. It is believed that the claim is without foundation and that it will soon be finally disposed of. Meanwhile this

portion of the boundary has only temporarily been defined by blazing the trees along it. Where the territory of the Maharaja Holkar adjoins this reserve the boundary was fixed some years since by a joint commission, and permanent masonry pillars were then erected at all angles of the boundary. With the exception of the disputed portion already referred to, a clear line 20 feet wide has been cut wherever the boundary is not defined by rivers or streams. The special expenditure on demarcation amounted only to 20 rupees 14 annas.

Demarcation of Khandwa reserve.

92. There were numerous interruptions in carrying out the demarcation of the Khandwa reserve, which was not completed before the close of the year. The first task has been to check the boundary existing on the ground by the congregated village maps prepared by the Revenue Survey: several instances were detected in which the State property had been encroached upon, and in these cases the boundary has had to be laid down afresh in accordance with the congregated village maps. Twenty-seven miles of boundary have thus been checked, and where necessary corrected. Pegs driven into the ground at every 100 yards and heaps of stones erected at all angles, mark the corrected boundary until the entire length of boundary has been checked. On completion of this portion of the work a line will be cleared round the forest and substantial marks will be erected.

Boundary of old reserves.

93. The boundary lines of Kalibhit and Punassa have been kept clear of scrub and tree vegetation by the regular establishment. The erection as permanent boundary marks in Punnassa of stout anjun posts to be surrounded by well set stones was intended, but, as the Divisional Officer owing to press of other work was unable to give his personal attention to the work, it had to be postponed.

Protection and Improvement.

Forest offences.

94. There were only 3 prosecutions, in which 11 persons were charged. In all of these cases convictions were obtained. There were several petty cases which were dealt with departmentally, the offenders being allowed to pay double dues. The most serious case in which prosecution was instituted, was one in which 9 persons were charged with firing the grass in a protected forest through negligence. They were each fined one rupee.

Protection from fire

95. The general seeding of anjun which took place in the past year rendered it expedient to try and preserve from fire as large an area as possible of anjun bearing forest. Endeavours were accordingly made to protect the new reserves of Chandgarh and Khandwa. It had previously been decided to extend fire protection in Kalibhit to 62,000 acres comprising the best and most promising part of this reserve, and this arrangement was not abandoned in consequence of the additional areas taken up in Chandgarh and Khandwa reserves. In Punassa block VI. was added to the area previously under protection.

96. The area protection of which was attempted and that actually protected up to the close of the dry season 1877-78 is as follows:—

	Attempted area Acres.	Protected area. Acres
Kalibhit	62,080	2,080
Punassa	54,580	51,780
Chandgarh	61,440	24,400
Khandwa	29,440	29,300
Total	2,07,540	1,07,560

The charges against the area actually protected were:—

	Total cost. Rs a. p	Per acre Rs a p.	Per square mile. Rs a p
Kalibhit	84 6 1	0 0 7·78	25 14 11
Punassa	414 4 4	0 0 1·48	4 14 11
Chandgarh	158 8 1	0 0 1·24	4 2 1
Khandwa	431 10 0	0 0 2·82	9 6 4
Total ...	1,088 12 6	...	...
Average for the division ...		0 0 1·91	6 5 10

97. The attempted protection in Kalibhit must be looked upon as a failure, five different fires having occurred, burning about 60,000 acres. The Conservato now regrets having accorded sanction to the extension in this reserve, which might advantageously have been postponed till 1878-79, but at the time it was fully expected that one of the upper subordinates would have been available to supervise the work.

98. Though no further extension of fire conservancy in Kalibhit is contemplated, it is necessary that the effort to protect the 62,080 acres already referred to should be continued. In Punassa two fires occurred, one in block No. VI, which burnt over about 3 square miles on the banks of the Nerbudda; the second burnt over about 880 acres in the west of block No. 1. The cause of these fires has not been detected ; in their suppression most valuable assistance was rendered to the Forest department by Balwant Rao, Agent of the Malguzar of Punassa, and Kalooram, Malguzar of Palri.

99. In Chandgarh success in protection from fire was only partial, several fires having occurred, burning about 58 square miles out of 96. In the protection of the remaining 38 square miles we have the assurance that a large stock of anjun seed must have been preserved, and that the result will be the production of an abundant crop of seedlings. Regarding the fires in Chandgarh, it is first necessary to note that fire protection over the whole area of Chandgarh was only undertaken during 1878 under pressure of circumstances, for with the numerous changes in progress during the year it would not, under ordinary circumstances, have been expedient to attempt so much. Had the establishment been better up to the work the result would probably have been more satisfactory. One of the three fires that occurred was unimportant; one was due to the carelessness or want of intelligence on the part of a fire-guard; while the third and most serious fire was probably the work of dacoits, traces of whose camp fires were found. It appears that the day prior to this fire a border village in Holkar's territory has been plundered, and it is suspected that the offenders in this case retreated through Chandgarh, creating fire to destroy all trace of their course.

Grazing

100. Grazing was allowed in the unprotected portion of Kalibhit and in the Chandgarh and Khandwa reserves. In Punassa blocks I. to VI. were closed against grazing. Notwithstanding the fact that the area available for grazing in Punassa was diminished by the closing of block VI, the number of cattle grazed was greater than in the previous year.

Filling up blanks by sowing

101. In the protected portion of Kalibhit 59 acres of blank after being roughly ploughed were sown with 143 maunds of teak seed in the month of May. The seed was first soaked in liquid manure for 1, 2, 3 and 4 weeks. Half the areas was sown in bands, the remainder broadcast.

The seed germinated freely early in the rains of the same year, but that soaked for 2 weeks came up best. On a portion of the area the seedlings were weeded, and here a large proportion of seedlings were killed by rats, which seem to have avoided those in the unweeded portion.

The total cost of this sowing was Rs. 12.

102. In Punassa the area sown was increased to 360 acres by the sowing in the rains of 1877 of 320 acres. They are in block No. III, near the Bhorla tank, where there is a considerable extent of good land only partially stocked with tinus, saj, and other species. Plots 1′ × 1′ for anjun and 2′ × 2′ for teak in alternate lines 15 feet apart and 10 feet apart fromce ntre to centre in the lines were worked up to a depth of 9 inches and then sown with teak and anjun in alternate lines. The teak seed was not prepared and did not germinate in 1877, but is now coming up in the rains of 1878. For the anjun the season was extremely unfavourable, nevertheless fully 40 per cent of the plots have at least one anjun seedling of the rains of 1877 still surviving, and the remainder are now being resown in the rains 1878. Omitting the charge for partial re-sowing last referred to, which will be trifling, the total cost of the 360 acres has been Rs. 591-11-0, or about Rs. 1-10-7 per acre.

Cutting over of badly grown teak.

103. These operations have been confined to Punnassa, and were carried on in block Nos. II and V. The amount of work done and its cost is exhibited in the following Statement:—

Locality.	Number of teak trees cut over.	Number of marketable poles obtained.	Cost.		
			Rs.	a	p.
Block No II. ...	59,387	20,498	615	7	3
Block No. V. ..	1,714	1,024	58	12	3
Total	61,101	21,522	674	3	6

104. Besides the above a number of injured saplings were cut back, and some trees of inferior species removed to give place to those of better kinds. The cutting over of teak has now extended to all parts of block II, in which teak was sufficiently plentiful. Notwithstanding the short rain-fall shoots from the coppice of 1877 made a fair average growth while shoots of the coppice of previous years, which appeared as if their upward growth was about to stop, added from 4 to 6 feet to their height. Mr. Fernandez records as the result of his observations, that under the present system of cutting flush with the ground the shoots that come up attain in three years the height they would acquire in five, if the stools were cut above ground level.

105. It has been observed that in a small area of a few acres cut over in the early part of 1871 the weaker shoots in the clumps began to seed in the rains of 1877, or at the commencement of the 7th growing season. As Mr. Fernandez remarks, however, the cutting was badly carried out, and during the first year of their growth the shoots were not protected from cattle or fire.

The only conclusion, therefore, that can be drawn is, that in Punassa teak coppice will not seed before the commencement of the 7th season of growth.

Yield and Working.

106. The following Statement gives the yield of the forests in the most important products obtained from them:—

Reserves.	Building wood				Bamboos	Fuel.	Grass	Grazing		
	Teak poles, small logs and pieces	Anjun posts	Of inferior kind.							
			No. of logs	No. 2 bullocks cart loads.	No. of bamboos	Number of 2 bullocks cart loads	Number of 2 bullocks cart loads.	Number of buffaloes	Number of cows and bullocks	Number of goats
Kalibhit ...	946	.	...	445	91,941	667	1,160	221	6,323	...
Punassa ...	20,364	15	41	161	47,380	770	156	2,328	4,650	38
Chandgarh ...	...	...	...	6	1,27,413	873	600	896	1,793	7
Khandwa ...	.	...	...	...	...	...	...	...	...	...
Total ...	21,310	15	41	612	2,66,744	2,310	1,962	3,445	12,766	45

107. In Kalibhit the demand is yet small, and it has not being necessary to place any special restriction on cutting, beyond the reservation of certain trees to be cut only under close supervision ; and where the interests ofthe forest admit, purchasers are still allowed to cut and remove wood of the inferior kinds, bambus, dead wood other than teak and grass. No teak was cut during 1877-78. There has been a considerable increase in the demand for bambús, the outturn having risen from 21,000 in 1874-75 to 91,000 in 1877-78 ; a demand for grass has also sprung up.

108. In Punassa to the five blocks previously protected block No. VI. was added. Within this area no cutting has been allowed except for the improvement of the forest. The cutting here has been confined to teak, much more could be advantageously extracted were there a better demand for inferior products. Beyond the closing of block No. VI. there has been no change in the arrangement for management or working.

109. The number of bambús taken from this reserve is considerably less than in the previous year ; but this is not to be regretted, as the past year was unfavourable for the production of shoots. It cannot be accounted for by the larger demand on Kalibhit, as most of the supply from Punassa went to a different market ; and again it cannot be attributed to deficient production, as the quantity removed from Chandgurh, where the present supply is plentiful, has also been less. Mr. Fernandez's supposition, that the decrease in the demand is the indirect effect of famine which has raised up the price of food grain, is probably correct.

110. In Chandgurh the arrangements are as yet the same as in the open block of Punassa. In the Khandwa forest, which has only been reserved since December last, commutation has been abandoned ; and pending the introduction of a systematic method of working, the cutting of green wood for fuel has been stopped. For some time to come grazing, fuel and grass must be the main sources of revenue, and it may be expected that under judicious management the receipts from the last two will steadily increase.

Financial Results.

111. The following is a comparative Statement of the receipts and charges for the past five years :—

		1873-74	1874-75.	1875-76.	1876-67.	1877-78.
		Rs.	Rs.	Rs.	Rs.	Rs.
Kalibhit ...	Receipts ...	14,685	10,964	8,607	6,266	6,777
	Charges ...	4,116	6,035	4,196	3,912	2,462
	Surplus ...	10,569	4,929	4,411	2,354	4,315
	Deficit ...	...	...	...	...	...
Punassa ...	Receipts ...	2,806	9,135	9,154	4,517	5,947
	Charges ...	8,031	11,839	10,202	7,509	6,101
	Surplus ...	..	...	..	...	...
	Deficit ...	5,225	2,704	1,048	2,992	154
Chandgarh ...	Receipts ...	...	...	...	...	2,502
	Charges ..	...	...	...	...	1,212
	Surplus ...	...	...	...	...	1,290
	Deficit ...	...	...	...	...	...
Khandwa ...	Receipts ...	...	...	...	...	283
	Charges ...	...	...	...	...	1,036
	Surplus ...	...	...	...	...	...
	Deficit ...	...	...	...	...	753
Total ...	Receipts ...	17,491	20,099	17,761	10,783	15,509
	Charges ...	12,147	17,874	14,398	11,421	10,811
	Surplus ...	5,344	2,225	3,363	...	4,698
	Deficit ...	...	...	...	638	...

112. An unfavourable year has told against the development of the revenue in this division, especially in Punassa and Chandgarh. The Kalibhit receipts were enhanced in 1873-74-75 by the sale of teakwood, while during the past two years no teak has been cut or sold. The receipts from bambús and minor produce are on the increase. As the Khandwa reserve was only taken over in the latter part of the year after the bulk of the receipts had been realized and credited to unreserved forests, the revenue derived from it as a reserve is a mere trifle.

113. The charges have varied to some extent with the rank of the divisional officer and that of the subordinates in immediate charge; but the variation is also partly due to the fact that, as compared with former years, the cost of work is less.

114. The surplus of the past year was small, amounting only to Rs. 4,698; but the temporary cessation of the demand from Mortakka alone diminished the receipts by 4,000 rupees. The comparatively small surplus is no matter for surprise. The present dull state of the market cannot, however, be expected to last.

CHANDA DIVISION.

Area and Boundaries.

115. There has been no change in the area of the Ahiri reserve; the small increase in Moharli is due to the purchase by the department of 152 acres of private land situated within the limits of this forest. All boundary lines and boundary marks have been maintained.

Protection and Management.

Breach of Forest rules

116. There was only one prosecution for breach of Forest rules, in which 24 persons were charged with firing part of the Taroba block in the dry season of 1876-77. They were all convicted and sentenced to fine.

Protection from fire

117. Only one fire, which burnt over about 10 acres of open land, occurred in the protected blocks of this division during the dry season 1877-78. The area under protection was as follows:—

	Acres.
Beemaram	12,296
Mirculloo	8,479
Taroba	25,619
Goverdhun	13,817
Total ...	60,211

118. The cost of and rate at which protection has been secured are as follows:—

	Cost			Rate per square mile.			Per acre.		
	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.
Beemaram ...	884	15	2	46	0	6	0	1	1·81
Mirculloo ...	1,191	15	9	89	15	5	0	2	2·99
Taroba ...	1,248	2	10	31	2	8	0	0	0·35
Goverdhun ...	595	6	1	27	9	0	0	0	8·27
Total ...	3,920	7	10	...			...		
Average for the division	...			41	10	8	0	1	0·5

In the two forests first mentioned the cost is in proportion to the length of boundary, which in Mirculloo is 2·4 miles per square mile of forest. The system is elaborate and proportionately expensive, but with forests like Ahiri no risk can be incurred.

Exclusion of cattle.

119. Within the area under protection from fire no grazing has been allowed.

120. Regarding the effects of protection from fire in this division Mr. Thompson, Deputy Conservator, remarks as follows ;—

> "The effects of protection are daily becoming more and more apparent ; countless teak and beejasal seedlings are now to be met with, where formerly they had to be looked for, and were with difficulty found. In the Ahiri reserves, and in the Goverdhun block of Moharli, former blanks are now closing up with a uniform growth of young seedlings and shoots from old stumps which had been hitherto kept down by the annual burning of the forests."

121. The work of clearing round teak seedlings and cutting back dominant species injurious to the growth of the young trees of the better kinds was carried out over 70 acres in sub-divisions 11, 12, and 15 of Division III; and the Divisional officer reports that it has been attended with a marked improvement in the growth of the young trees. This work will be continued, but it will probably be some time before it can be carried on on a large scale.

Stocking by sowing and planting.

122. The teak plants put out in the Beemaram forest have not made good progress, but are still alive. The growth of other species among which they were planted requires to be heavily thinned, and this will be done.

In 1876 a discarded fire line was sown with teak, and is now well stocked with seedlings, some of which it is reported are 3 feet in height.

123. During the rains of 1877 6,536 teak plants were put out in the Goverdhun block on 49½ acres and 1,423 in the Taroba block on 11 acres, the object being to introduce teak among the present crop. Portion of the plants were previously established in bambú baskets in which they were kept for the dry season. Lines 6 feet wide and 30 feet apart were cleared through the natural growth, and in these lines the plants were put out 9 feet apart. The past dry season was extremely severe, and no less than 1,634 plants at Goverdhun and 973 in Taroba were supposed to have died down. Many of these in the Goverdhun block are throwing up new shoots, and the planting here is reported as a decided success by the Divisional officer who recently visited it.

It is possible that at Taroba also many of the plants supposed dead are sending up new shoots.

124. The cost of these operations was as follows :—

	Rs.	a.	p.
Goverdhun	190	9	7
Taroba	52	9	0

Of one thousand plants put out in this manner in 1876 between Janona and Dewara in the Goverdhun block 620 are alive and healthy, though growing slowly. Another experiment in which 1,900 trees were put out in the same year was less successful. At Singora on the Nia-Andhari a nursery was formed and sown with 10 maunds of teak seed in the rains of 1877. About 12,000 plants obtained from this nursery were potted in bambú baskets for final planting out in 1878, and in December 1877 they were in a most flourishing condition. The total failure of the water-supply (a most unusual occurrence,) however, killed out the majority of these plants, and the remaining 3,380 had to be removed to Goverdhun, where they are now being put out on the most favourable site available. The nursery has since given a large stock of plants, which are now being transplanted 9′ by 9′ in a very favourable locality along the Andhari river.

125. In the sowings of 1875 on the plot system near Moharli more seedlings are now springing up. An experiment on another plan for increasing the proportion of teak in Moharli is now being tried, lines at intervals of 200 feet

being cleared to a width of 100 feet to receive the plants. In these cleared belts pits 2 feet deep and 2 feet square at the surface in lines 8 feet apart and 9 feet apart in the lines are prepared to receive the young teak, and it is expected that good cultivation of the soil and free admission of light without a total absence of shelter will lead to most satisfactory results. The wonderful growth of teak seedlings left in the nursery bed at Moharli, the soil in which had been well worked, led to this being tried.

126. The introduction of Anjun in the Taroba block is also being tried, and gives every prospect of success. If this species can be got to take the place of "gabdi" and "salai" on the Vindhyan sand-stone of Moharli, the value of the forest will be enormously enhanced.

127. In the past year success in the artificial propagation of the better indigenous species was very partial, but the failures are due almost entirely to accidental circumstances which are of rare occurrence.

128. Touching on the progress of the young teak crop Mr. Thompson writes as follows:—

> "In connection with the above remarks this appears the right place to mention the ravages committed by a catterpillar which has attacked the young teak leaves in the forest of the Chanda district, causing considerable damage to the young trees, by killing off the leading shoots through depriving them of their leaves. The flowering panicles of teak were also attacked, and that has resulted in a complete failure of the seed crop of the year. The catterpillars apparently belong to a species of moth, whose history has yet to be learnt. Measures are, however, being taken to identify the creature."

129. During the past year similar depredations by caterpillars were elsewhere to be seen, but they were worst in the Chanda district, and were probably favoured by a comparatively high temprature and short rainfall.

130. With a view to the future sub-division of the Beemaram forest a new line 20 feet wide to answer also as a road has been cleared straight through Divisions III and IV, from pillar 22 on the west to a point near pillar 28 on the east. Other lines have been projected with the same object in view, but have not yet been cleared.

131. As suggested by the Inspector General of Forests the meteorological observations at Ahiri have been continued. The following is an abstract of the records of rain-fall and temperature:—

Month.	Monthly average.			Highest maximum.		Lowest minimum		Rain-fall.		Number of days on which rain fell.
	Dry bulb minimum.	Wet bulb minimum.	Dry maximum.	Date.	Degrees.	Date.	Degrees.			
1877.										
April ...	73·3	66·8	100·5	21st and 27th	105	2nd and 21st	69·	1	70	8
May ...	77·5	71·8	102·9	12th and 13th	109	27th	71·5	7	58	7
June ..	79·	75·6	100·	18th	107·5	8th	75·	3	46	11
July ...	76·4	74·9	85·7	4th	101	26th and 27th	73·	13	02	18
August ...	75·	74·4	92·	19th, 21st & 22nd	97	29th and 30th	72·5	4	29½	13
September	74·3	73·3	94·8	12th, 20th & 21st	99	13th	72·	4	35	10
October ...	72·4	71·4	97·7	6th, 7th, 8th, 12th, 13th, 19th, 20th, 23rd, 24th, 25th, 26th, and 29th ...	99	23d, 25th & 29th	71·	2	29½	4
November	56·6	56·2	91·6	1st	95	7th daily to 30th	54·	...	...	...
December	53·5	53·4	91·2	4th, 5th, 6th, 7th, 11th, 12th, and 13th ...	93	31st	48·	1	85	4
1878.										
January ...	52·7	51·1	88·8	24th	93½	3rd and 4th	40·	...	...	...
February ...	59·2	57·5	98·8	27th	105	14th	50·	...	...	...
March ...	73·6	70·3	104·6	8th, 9th, 30th and 31st	107	17th	62·	...	...	...

132. The Ahiri reserve and the Goverdhun and Taroba blocks in Moharli were closed against all cutting by purchasers. The forests east of the Andhari river were closed against the cutting of green wood, but were in other respects open to purchasers; while in the remaining area of Moharli the cutting and removal of produce of all classes except wood of the reserved kinds was allowed.

Yield and Working.

133. From the Ahiri reserve 297 teak logs felled in 1874 were worked out, but no fresh timber or other produce has been cut. In Moharli 47,000 bambus were cut by Departmental agency in the Taroba and Goverdhun blocks, but with this exception these blocks were closed against cutting.

Departmental timber operation

134. The Departmental timber operations were as follows :—

a.—The collection at Allapilli Depot of 87,500 cubic feet of teak timber, of which 5,413 consisted of wood felled departmentally in Beemaram in 1874, the balance of 82,087 cubic feet having been obtained from dead wood and injured trees in the Ahiri Zamindari forests.

b.—The conversion at the Allapilli Saw mills of 108,341 cubic feet of timber giving the following outturn :—

Teak scantlings	..	12,101	=18,418
,, planks	...	1,258	= 478
,, sleepers	..	11,695	=45,972
,, slabs	..	2,060	=10,536
,, side pieces	...	769	= 440
Huldú scantlings	...	27	= 103
Saj scantlings	...	288	= 1,130
Total cubic feet	...		77,077

c.—10,245 logs and scantlings containg 43,606 cubic feet despatched to various intermediate depots *en route* to Coconada and Tulana.

d.—Cut in Moharli 46,900 bambús.

e.—Transported to Warrora for sale 22,375 bambús. These operations call for no special remark, beyond that the season having been a bad one for business in the more valuable products, operations have been restricted.

135. The following Statement exhibits the work done by the Ahiri Saw-mills from 1st April 1877 to 31st March 1878 :—

Details of work.

Timber cubic feet		Feet cut.		Kind and description of timber.	Number of pies	Cubic feet			Remarks
Logs	Cubic feet	Running feet.	Superficial feet			C ft	I.	P.	
8,018	108,503	820,441	623,693	Teak sleepers ...	425	1,395	10	7	
				Teak scantlings between 25 and 100 inches in cross section ...	12,101	18,417	9	1	
				Teak pieces 25 to 100 inches in cross section ...	2,060	10,536	2	10	
				Saj scantlings 25 to 100 inches in cross section ...	288	1,130	2	7	
				Huldú ditto ditto ...	27	103	3	8	
				Teak sleepers, large size ..	11,170	44,576	6	9	
				Teak planks ...	1,258	477	6	7	
				Teak furras ...	769	440	9	3	
				Total ...	28,198	77,078	3	4	

Details of charges.

Particulars.		Amount.			Total.		
		Rs.	a.	p.	Rs.	a.	p.
1.—Pay of Native Foreman	...	441	12	2			
2.—Establishment employed on machinery	...	2,832	4	5			
3.—Establishment employed on timber	...	387	15	5			
4.—Fuel	...	148	12	4			
5.—Watering	...	170	8	7			
6.—Oil, grease and stores for working	...	438	10	9			
7.—Repairs, including workshop establishment	...	525	13	9			
8.—Contingencies	...	...	...	...			
9.—Extraordinary charges	...	..	...	...			
Total current charges		4,945	13	5	4,945	13	5
A.—Total current charges	...	4,945	13	5			
B.—Add cost of establishment's maintenance for the mill during recess	...	...	...	...			
C.—Add 10 per cent capital outlay on machinery	...	1,533	0	0			
Total charges	...	6,478	13	5	6,478	13	5

136. There were several interruptions for repairs, which with Sundays reduced the number of working days to 258.

The average working time was 13 hours 49 minutes.

137. The average rates for work done were :—

		Rs.	a.	p.
per 100 running feet	...	0	12	7·6
per 100 superficial feet	...	1	0	7
per 100 cubic feet of rough timber	...	5	15	6
per 100 cubic feet of outturn	...	8	6	5

These rates are extremely moderate, and allowing for the disadvantages to be contended with, they must be considered highly satisfactory.

138. The list of produce removed by purchasers from Moharli occupies no less than three pages of foolscap, and owing to the great variety in the description and size of the articles it is scarcely possible to exhibit the whole in a concise form.

139. The following Statement, however, gives the more important produce yielded; and exhibits, with the exception of some numerous, but petty articles, the total yield of the forests.

Reserves.	Timber and small building wood.				Wood for agricultural implements and carts manufactured or half wrought pieces.	Bambus.	Bamba mats and baskets.	Fuel.		Grass.
	Logs.	Cubic feet.	Poles.	House posts.				Wood.	Charcoal.	
								Cart loads.	Head loads.	Cart loads.
Moharli ...	19	923½	12,209	2,080	44,981	12,51,010	91,160	602	258	6,375
Ahiri ...	297	...	...	...	...	...	...	...	...	...

140. The number of cattle grazed in Moharli was as follows :—

Buffaloes	...	490
Cows and bullocks	...	5,826
Sheeps and goats	...	2,116

Financial Results.

141. The following is a comparative Statement of the receipts and charges for the past five years :—

Year.		1873-74.	1874-75.	1875-76	1876-77.	1877-78
		Rs.	Rs.	Rs.	Rs.	Rs.
Ahiri	Receipts ...	19,063	1,20,077	1,40,560	96,244	36,117
	Charges ...	70,914	85,946	1,16,257	45,622	51,191
	Surplus ..	...	34,131	24,303	50,622	...
	Deficit ...	51,851	...	...	...	15,074
Moharli	Receipts ...	3,606	10,000	12,219	13,374	18,895
	Charges ...	4,408	10,084	11,612	15,759	15,456
	Surplus ...	...	...	607	...	3,439
	Deficit ...	802	84	...	2,385	...
Total	Receipts ...	22,669	1,30,077	1,52,779	1,09,618	55,012
	Charges ...	75,322	96,030	1,27,869	61,381	66,647
	Surplus ...	...	34,047	24,910	48,237	...
	Deficit ...	52,653	...	...	...	11,635

142. During the past year the sales of timber were very limited. There were no demands for public purposes, and the attractions offered by the grain trade temporarily stopped all prospects of sale to traders in the north of the Division. The receipts of the Ahiri sub-division have thus fallen short of the expenditure by Rs. 15,074. There is, however, considerable increase in the value of stock on hand, and the deficit will in all probability be more than counterbalanced by a surplus in the current year.

143. The steady development in the revenue from Moharli is satisfactory; the more so, as there is every prospect of its continuing to rise. The charges, on the other hand, for the next few years will probably be somewhat less than in 1877-78.

SEONI DIVISION.

Area and Boundaries.

144. During the year under report the whole of the Satpura reserve, the area of which remains unchanged, was included in the Seoni Division.

145. The boundaries of the Satpura reserve were thoroughly cleared in 1876-77, and with the exception of the charge for clearing 8 miles of boundary line in the West Pench Sub-division, no expenditure on this account was necessary in 1877-78. The total outlay was Rs. 42-13-3, which includes the cost of an experiment in planting cuttings of "Ficus" as boundary marks.

Protection and Improvement.

Breaches of Forest rules.

146. There were 10 cases, in which 27 persons were prosecuted under the Forest Act and Penal Code; of these, 24 persons were convicted in 8 cases.

In about 50 petty cases the offenders were exempted from punishment on payment of enhanced rates for the produce removed by them.

Protection from fire.

147. In the East Pench Sub-division another block of about 5,120 acres of promising forest was brought under protection from fire. The area under protection and that protected up to the close of the season 1877-78 was as follows:—

		Attempted. Acres.	Protected. Acres.
Korai block	... ...	31,210	31,210
East Pench	... ...	42,560	42,380
West Pench	... ...	5,120	5,120
	Total ...	78,890	78,710

148. The cost of protection in the different sub-divisions has been as follows:—

		Total cost			Per acre.			Per square mile.		
		Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.
Korai block	...	590	9	11	0	0	3·63	12	1	7
East Pench	...	524	13	4	0	0	2 37	7	14	4
West Pench	...	366	3	6	0	1	1·73	45	12	3
Total	...	1,481	10	0		...		...		
Average for the Division	...				0	0	3·61	12	0	6

The comparatively high rate in the West Pench is due to the area being small, and the fact of 1877-78 being the first year of protection. As yet, in the Korai block alone can marked results from fire protection be expected; and in this forest the improvement that is taking place continues to be most apparent.

149. Most of the individuals of the crop standing prior to fire conservancy are assuming a more vigorous appearance, and except where seed-bearing trees are wanting and where the cover is too dense, reproduction from seed is progressing with greater or less rapidity, according to the quality of the soil; while the young seedling crop generally presents a fair proportion of the superior species. Numerous small blanks have thus become completely stocked.

The growth of the young crop is still slow even on good soils, but once the young trees attain a height of 3 feet, the rate of growth may be expected to increase rapidly. During the rains of 1877 the crop of grass was unusually heavy; but though this circumstance was against forest reproduction in that year it will probably produce conditions highly favourable for reproduction in 1879.

Grazing.

150. Within the areas under protection from fire no grazing has been permitted.

Sowings.

151. Sowings to fill up blanks or improve the composition of the crop have been continued, but the season was extremely unfavourable, and consequently the results were not what might ordinarily be expected. At Korai on 50 acres sown in 1876 with teak, bija, saj and seevun, but on which the three last mentioned failed in that year, the blanks were re-sown with teak, rohun, saj and seevun, at a cost of Rs 117-6-3; but owing to failure of the rain at the time it was most required the result was but a very partial success. A fair proportion of the teak put down in the previous year germinated, and it is expected that the teak sown in 1877 will come up well in the

current year; 75 acres of newly prepared land were also sown on the plot system near Korai. The prepared plots are 6 feet apart, and were sown with teak, rohun, bija, sheshum and seevun in the rains of 1877, at a cost of Rs. 119-15-6. The teak could not be expected to germinate till the current year; the other species came up freely, but here also a very large proportion of the young plants died off. Near Rukúr a sowing of teak, sheshum and rohun was made on prepared lines 2 feet wide and 10 feet apart over about 50 acres, but in this case bija and rohun appear not to have succeeded. The total expenditure on this area was Rs. 134-11-0 In the East Pench Sub-division there was an expenditure of Rs. 40-14-0 on sowing, in the manner last described, 12 acres of blank with teak and bija. The bija failed almost entirely, but a good crop of teak is expected in the current rains. The fact that rohun failed in this sowing indicates a most unfavourable season, for, as a seedling, it is one of the hardiest of indigenous species.

Eradication of creepers.

152. The cutting out of creepers has been carried on where the copsing operations referred to further on were in progress, besides which all creepers were cut out of a block of about 2,560 acres to the east of Rukur, which was most completely infested with them. The cost of this operation was Rs 294-6-0. Their eradication has, however, by no means been completed, for a very large proportion have thrown up new shoots, and the tree growth which they have hitherto tended to check is not sufficiently advanced to keep them down. The operation will have to be repeated, and possibly more than once. It was noted that of those cut in the rains a larger proportion died than of those cut in the cold season; and if in future operations the same results are noted some saving will be effected by reserving such work for the rainy season.

153. The cutting over of badly grown teak was carried out over an area of about 1,060 acres between Rukur and Sukhadongri, where there was a considerable extent of teak coppice,—most of which, owing to damage sustained in former years, could not improve. Within the area above specified 10,006 damaged teak trees were cut out. These only gave 5,123 marketable pieces, a fact which in itself illustrates the wretched condition of the trees cut. With rare exceptions the stools have thrown up vigorous shoots averaging 6 feet in height and having a most promising appearance. The cost of this operation was Rs. 581-3-2, and was charged to A1*a*. The above amount includes the cost of cutting out creepers and collecting the marketable teak at the Rukúr depot. The coppicing of badly grown teak was also carried out in a piece of forest near Telia, where teak was the dominant species. Here 2,028 trees were cut over, which gave 1,704 marketable poles. All promising teak trees were left, and these are very numerous in the area in which the cutting took place. A very promising crop of shoots has come up from the stools, though not so good as those near Rukúr. The expenditure on this operation was only Rs. 78.

Yield and Working.

154. There was no change in the method of working. From the blocks under protection from fire the removal of deadwood and grass was permitted as long as the safety of the forest permitted. As already stated under another head, some teak was cut to improve the standing crop in the Korai and West Pench blocks, and in the Korai Sub-division some bambús were cut and collected by Departmental agency. From the portions not under protection from fire the removal of deadwood and grass and the cutting and removal of bambús was permitted throughout the year. Inhabitants of a few villages near the forests were also permitted to cut and remove a small number of poles. With the above exception the cutting of green wood by purchasers has not been allowed.

Produce collected by Government agency.

155. The timber operations have been confined to the cutting and transport to Nagpur and Kamptee of 44,600 bambús, 15 salai logs and the cutting and collection at Forest depots 6,827 teak poles, of which a small number were transported to Nagpur. Of minor produce but a small quantity was collected on account of Government, the right to collect such produce having generally been sold.

156. The following Statement, in which produce removed by purchasers and that collected on account of Government are taken together, gives the yield of the forest in the more important products :—

	Number	Cart loads
Teak poles ...	6,818	...
Poles of other kinds ...	3,372	...
Salai logs ...	15	...
Bambús ...	8,73,797	..
Fuel ...	...	3,737
Grass ...	...	11,665

The stock grazed in the reserve numbered :—

Buffaloes	5,085
Cows and bullocks	22,812
Sheep and goats	715

In connection with the foregoing figures the outturn of bambús being about 3,00,000 in excess of that of the previous year, is the only fact worthy of note.

Financial Results.

157. The following Statement exhibits the receipts and charges on account of the Satpura reserve for the past five years:—

Year.	1873-74	1874-75	1875-76	1876-77.	1877-78.
	Rs.	Rs.	Rs	Rs	Rs
Receipts	11,639	14,585	14,630	16,765	20,742
Charges	19,772	11,789	20,542	20,288	18,131
Surplus	...	2,797	...	...	2,611
Deficit	8,133	...	5,912	3,523	

The fluctuations in the charges are mainly due to the difference in rank of the officers in charge at different times. The receipts exhibit a steady increase, and when it is remembered that at present this forest is almost everywhere separated from the well populated tracts of country by forest lands of considerable extent, that in regard to the more valuable products the forest was worked out prior to reservation, and that the value of the forest is being steadily increased by the strict conservation enforced, the results exhibited by these figures must be considered satisfactory. It can confidently be stated that during the past five years the increase in the value of the forest brought about by conservation has vastly exceeded the deficit that has resulted during that period, and the day must come when the result will be apparent in the receipts.

SAUGOR DIVISION.

Area and Boundaries.

158. The reserves in this Division are Garhakota, Tigora, Hathkho, Ranjir and Ranipura. With the Chief Commissioner's sanction there have been some trifling additions to the Hathkho, Ranjir and Ranipura reserves, and the total area of the reserves in the Saugor Division is now 65 square miles, 95 acres. Rs. 44 were spent in keeping the Ranipura boundaries in order. In the other reserves no expenditure on the maintenance of boundaries was found necessary.

Protection and Improvement.

Forest offences.

159. Only 4 prosecutions were found necessary. The 4 individuals involved in these cases were convicted and punished There were also some cases of grazing and removal of produce without licenses, in which the parties concerned were required to pay higher rates than are ordinarily charged.

Protection against fire.

160. The following Statement exhibits the work of the dry season 1877-78 under this head :—

		Attempted. Acres.	Actually protected. Acres.
Garhakota	...	2,899	2,899
Ranjir	...	1,987	1,987
Hathkho	...	10,598	10,248
Total	...	15,484	15,134

The charges against this work were as follows :—

		Total cost. Rs. a. p.	Per square mile. Rs. a. p.	Per acre. Rs. a. p.
Garhakota	... ...	8 6 0	1 13 4	0 0 0·55
Ranjir	... ...	5 15 0	1 14 4	0 0 0·57
Hathkho	... ...	252 11 8	15 12 3	0 0 4·73
Total	...	267 0 8	...	...
Average for the Division		...	11 3 2	0 0 3·36

One fire occurred but was extinguished before it had spread to any extent. The very low rates in Garhakota and Ranjir are due to exceptionally favourable conditions. The Divisional Officer reports that up to the close of the official year the ordinary establishment succeeded in keeping fire out of Ranipura without any special expenditure; but whether or not protection up to the monsoon was successful is not at present known, as the Divisional Statement only includes those areas in the protection of which expenditure was incurred.

Grazing.

161. No grazing was permitted in the areas under special protection from fire.

Stocking.

162. In Garhakota about 10 acres on which teak only existed were sown in lines with seed of other useful species. Four acres were also sown with bambú seed in prepared lines 6 feet apart. The seed came up fairly well, and the lines will admit of a considerable number of transplants from them. The total cost of this sowing in Garhakota was Rs. 198, but this included the cost of watering the young bambús and also some young carob trees. In Hathkho 1½ acre of bambú nursery was formed and maintained at a cost of Rs. 27-4-0. It is reported to contain a goodly stock of bambú seedlings which should be fit for final planting out in the rains of 1879.

Cutting over badly grown trees.

163. The cutting over of badly grown teak in Hathkho was not continued during the year under report. The progrees of the shoots from the cutting of the previous year, though variable, is good, some of the shoots having run up to 9 and 10 feet.

164. The Divisional Officer notes that in the protected part of Hathkho teak seedlings are now much more common than formerly, and the standing crop in Ranipura has made considerable progress. The improvement taking place in Garhakota is also marked.

Yield and Working.

165. From the reserves in this division the removal of very little produce has been permitted. From Garhakota the removal of grass and dead wood only was allowed. In Ranipura grazing and removal of grass was allowed and on a

small area of 50 acres all well grown and promising poles or saplings being reserved, the rest of the crop was cut off and sold as fuel. In the other reserves the removal of grass and dead wood and the cutting of a small quantity of green wood to meet the wants of adjoining villages was allowed: except in the areas under protection from fire grazing was also permitted.

Financial results.

166. The following Statement exhibits the receipts and charges for the past five years:—

		1873-74	1874-75	1875-76.	1876-67	1877-78.
		Rs.	Rs.	Rs.	Rs	Rs.
Garhakota	Receipts	2,905	2,905	2,527	1,502	1,775
	Charges	1,834	2,798	1,499	1,607	1,376
	Surplus	1,071	...	1,028	...	399
	Deficit	...	703	...	105	...
Tigora	Receipts	90	82	58	66	186
	Charges	1,381	793	1,252	1,213	945
	Surplus	..	...	..	...	...
	Deficit	1,291	711	1,194	1,147	759
Ranjir	Receipts	718	520	499	508	790
	Charges	1,676	1,154	1,351	1,452	1,225
	Surplus	...	...	...	...	...
	Deficit	958	634	852	944	435
Ranipura	Receipts	780	511	400	546	509
	Charges	1,780	1,094	1,373	1,416	1,293
	Surplus	...	...	...	...	...
	Deficit	1,000	583	973	872	784
Hathkho	Receipts	1,042	931	831	1,045	81
	Charges	1,751	1,298	1,567	2,163	2,093
	Surplus	...	...	...	..	...
	Deficit	709	367	736	1,118	2,012
Total	Receipts	5,535	4,139	4,315	3,667	3,341
	Charges	8,422	7,137	7,042	7,853	6,932
	Surplus	...	...	...	...	...
	Deficit	2,877	2,998	2,727	4,186	3,591

167. With the exception of Garhakota the condition of the reserves in this division when first taken up was such as to leave little prospect of immediate revenue. Garhakota gives a fair income, and may be expected in a few years to return fully Rs. 1 per acre. The receipts of the past two years from this reserve were kept down owing to the exhaustion of the supply of dead wood and to the fact that no teak was felled. With the cutting out of inferior species, which will now soon be commenced, the receipts will doubtless increase. From other reserves no considerable return could be expected without sacrifice of future interests, which is not called for. The outlay on the reserves of this division is moderate, and can well be afforded.

EASTERN DIVISION.

168. Regarding the two small reserves of Hathibari and Kuntra Nala, constituting the Eastern Division, there is very little to record. They are at present incapable of giving a yield in timber, and the demand for bambús and grass is too small to merit mention. Hathibari is a teak-producing forest and contains about 100 acres artificially stocked with this species. To the conservation of this tract, therefore, attention has chiefly been paid.

169. Hathibari was successfully protected from fire at a cost of Rs. 135-10-8 or Rs. 0-1-0·26 per acre.

170. Sowings of teak and other trees on a small scale were also made with the view of filling up blanks, and the growth of natural seedlings of the better kinds has been fostered by the removal of obstructions to their upward course.

171. The attempt to protect Kuntra Nala from fire failed owing to the ill health of the Forest guard in charge. Efforts were made to obtain a small return by the cultivation of lac in these reserves, and a yield of 60 maunds obtained. Prices are, however, very low, and there seems little chance of their rising.

172. The receipts and charges for the past five years were as follows:—

Year.		1873-74.	1874-75.	1875-76.	1876-77.	1877-78.
		Rs.	Rs.	Rs.	Rs	Rs.
Hathibari ...	Receipts ...	4,676	820	824	258	81
	Charges ...	3,122	1,350	970	1,301	845
	Surplus ...	1,554	...	...	...	...
	Deficit ...	...	530	146	1,043	764
Kuntra Nala ...	Receipts ...	...	...	...	...	...
	Charges ...	562	755	556	649	504
	Surplus ...	...	...	...	...	...
	Deficit ...	562	755	556	649	504
Total ..	Receipts ...	4,676	820	824	258	81
	Charges ...	3,684	2,105	1,526	1,950	1,349
	Surplus ...	992	...	...	...	...
	Deficit ...	...	1,285	702	1,692	1,268

Up to 1876-77 the realizations were chiefly on account of the sale of dead teak collected from Hathibari. The charges on account of the past year were actually Rs. 300 more than shown in the foregoing Statement, owing to a liability remaining unadjusted at the close of the year

CHAPTER III.

UNRESERVED FORESTS.

173. The area of the unreserved forests was the same at the close as at the commencement of the year, but according to the district report 389 square miles and 353 acres represents more closely the actual area than 390 square miles shown in previous returns.

Nagpur.

174. Placing the services of an officer of the superior Forest establishment at the disposal of the District officer to assist in the management of the unreserved forests was the only administrative change that took place. The result of this change is that more efficient control has been exercised over the Forest establishment, the lessees have been more closely checked. A revised forest map has been prepared, some useful information regarding the revenue-yielding capability of the forest tracts was collected, and a fair commencement has been made towards better management in the future.

175. The cutting of teak which had been considerably over-done was stopped altogether during the past year.

176. There were 17 cases in which 18 persons were prosecuted for breach of Forest rules, and in these cases the conviction of 14 persons was secured.

177. The defects of the existing system of realizing the revenue were commented on in the past year's report. For various reasons it was found impossible to effect any change till after the close of 1877-78. The leasing system has now however been abolished and an improved system of issuing licenses for all classes of forest produce introduced. The license system now in force in this district elaborated by the Deputy Commissioner with the assistance of Mr. Hooper, Assistant Conservator, is the best form of license system that has yet been introduced. Its best points are that the licenses having a fixed value before issue to the vendors, these individuals must credit Government with the full value, according to the fixed rates, of the produce for which they give licenses; while the quantity and description of produce to which the licenses refer, being so represented by colors and signs as to be easily intelligible to the most illiterate, the possibility of purchasers being cheated by the vendors is reduced to a minimum.

178. The following is a comparative Statement of the receipts and charges for the past five years:—

	1873-74.	1874-75.	1875-76.	1876-77.	1877-78.
	Rs.	Rs.	Rs.	Rs.	Rs.
Receipts	21,353	12,243	15,805	15,346	15,922
Charges	4,092	3,697	3,998	4,056	6,936
Surplus ...	17,261	8,546	11,807	11,290	8,986

179. The District Forest Officer has also duties to perform in connection with the Conservator's Office, and consequently half of his salary is debited against that office.

180. It is confidently expected that the change of system effected in the current year will very materially increase the forest receipts, though it cannot be expected that the full benefit resulting from it will be realized in the first year.

Bhandara District.

181. There has been no change in the unreserved forest area in this district.

182. The system of management has remained the same as in the previous year, but there has been some increase in the rates charged for certain articles, while payment has been required for others hitherto allowed to go free. In consequence of restrictions placed on the use of the forest by charcoal burners, these people are said to have resorted to the Zamindari forests, a circumstance which is not to be regretted.

183. There was only one prosecution for breach of Forest rules, and the persons involved in this case were convicted.

184. The following figures exhibit the receipts and charges for the past five years :—

	1873-74	1874-75.	1875-76	1876-77	1877-78
	Rs.	Rs.	Rs.	Rs.	Rs.
Receipts	31,461	29,467	36,487	33,208	46,207
Charges	2,138	2,441	2,968	2,845	2,891
Surplus ...	29,323	27,026	33,519	30,363	43,316

The receipts of the past year have been swelled by the realization of Rs. 6,220 on account of 1876-77 referred to in the report for that year. There has been a further decrease in the amount realized from produce of the Government forest exported from the district, which is attributed to the demand for carriage for the transport of grain; on the other hand, the farms of the right to take dues for grazing and for such minor produce as jungle fruits, gums, &c. sold for a higher amount, while the realizations from commutation were somewhat higher. On the whole, therefore, the Bhandara district shows a tolerably steady increase in its forest receipts.

185. The commuting population numbered 318,877, occupying 69,702 houses ; and the amount realized in this way being Rs. 18,783-14-0, the rate fell at about 4·3 annas per house, or a trifle under 1 anna per head of population.

186. The District Officer again urges the necessity of professional assistance in the management of the Bhandara forests, and it is hoped that it may ere long be possible to post an officer of the superior staff to this district.

Wardha District.

187. There has been no increase or diminution in the area of the unreserved forests.

188. Great efforts have been made to obtain a better return for the produce taken from the forests, and though owing to the arrangements not being completed till late in the season the results have not been as good as was expected; they are nevertheless satisfactory, the receipts being larger than have been obtained for several preceding years. The forests of Wardha are undoubtedly too exhausted to yield at present any considerable revenue from wood, though under proper supervision and control a moderate sum might doubtless be derived annually by sale of teak poles. It is, however, better that revenue from this source should be foregone until such time as it may be possible to ensure the judicious selection of the trees, and these being cut in such a manner as will ensure good re-production. Efforts have therefore been mainly directed to the development of the revenue from grass and grazing.

189. The following is a comparative Statement of the receipts and charges for the past five years :—

	1873-74.	1874-75	1875-76.	1876-77.	1877-78.
	Rs.	Rs.	Rs.	Rs.	Rs.
Receipts	9,107	8,525	10.145	10,494	15,815
Charges	3,447	3,616	4,084	4,152	4,123
Surplus ...	5,660	4,909	6,061	6,342	10,692

Of the realizations in 1877-78 Rs. 1,711-14-6 were on account of the previous year, while at the close of 1877-78 there remained due to the department a sum of Rs. 2,942, the bulk of which has since been realized. The value of the year's transactions was therefore Rs. 15,815—1,712×2,942=Rs. 17,045, or Rs. 1,200 more than the actual cash receipts. The net cash receipts exceed those of the previous year by Rs. 5,354, and it is satisfactory to note that this result has been obtained without causing any additional drain on the forests.

190. There were 17 cases in which 28 persons were prosecuted for breach of Forest rules; but of these, 12 persons only involved in 9 cases were convicted.

Upper Godavari District.

191. Regarding forest administration in this district there is very little to record. The district contains some good tracts of Government forest which there is reason to believe will at no very distant period become valuable. For teak there is already a brisk demand, but what remains of this species requires to be carefully fostered. Some of these forests were examined by Mr. Thompson, and his report leads to the conclusion that the sooner portions of them are brought under special conservation the better. This matter is under consideration, and proposals will in due course be submitted for approval.

192. Two thousand small logs of teak collected by the District Officer were taken over by the Deputy Conservator, Chanda Division, and despatched for sale to Coconada. The proceeds from this timber will probably appear in the accounts for the current year.

193. The actual receipts amounted to Rs. 3,762 or Rs. 2,400 less than in the previous year. The decrease is mainly due to the fact that there have been no sales of teak during the year.

194. There were no prosecutions for breach of Forest rules.

Chanda District.

195. No change has taken place in the area of the unreserved forests.

196. Here also the services of an officer of the superior forest staff were placed partly at the disposal of the District Officer for the management of the unreserved forests, and there is every indication of this arrangement leading to an increase of the receipts which in the Chanda District is the most important point demanding attention.

197. The system of management was the same as in the previous year. Excepting in 56 villages the inhabitants of which declined to commute, commutation prevailed throughout the district. Excepting in a few of the more prosperous villages which paid at the rate of 4 annas per house the commutation rate was annas 3.

198. The commutation assessment of the previous year was on an enumeration of houses made some years since. A fresh enumeration was made which showed the number of houses to be 10 per cent more than represented at the former enumeration, and this has somewhat increased the receipts.

199. Produce taken for sale was allowed to be removed on licenses previously obtained and paid for.

200. The following Statement represents the receipts and charges for the past five years :—

	1873-74.	1874-75.	1875-76.	1876-77	1877-78.
	Rs.	Rs.	Rs.	Rs.	Rs.
Receipts	22,572	21,772	23,059	26,137	30,342
Charges	1,152	1,760	3,173	3,709	6,658
Surpus ...	21,420	20,012	19,886	22,428	23,684

The steady rise in the receipts is satisfactory. The net results of the year have been affected by a charge on account of supervision not hitherto incurred.

It has recently been decided to abolish the commutation system except in the tract east of the Weinganga, where for the present it must be looked upon as a necessary evil. The more rational method of requiring payment for the actual quantity of produce of all kinds consumed will, at any rate, by preventing waste, afford some protection to the forests.

201. There were 7 cases in which 9 persons were prosecuted and convicted for unauthorized felling of forest produce. It was only in the more flagrant cases that prosecution was resorted to.

Balaghat District.

202. The area of the unreserved forests has been diminished by the settlement for ten years of 33 square miles 207 acres.

203. There were no prosecutions for breach of Forest rules, the levying of enhanced rates having been considered a sufficient penalty in the cases detected.

204. The Uskal block with an area of 45,190 acres situated on the Uskal river in the Dhanswa Parganna, and the Butkheri and Godri blocks with an area of 5,368 acres situated on the Deo-Nadi in the Langi Parganna were closed against the cutting of green wood; the removal of bambús, dead-wood and grass and the grazing of cattle were, however, permitted. These arrangements are reported as having been in force for 8 years. With the exception that bambús were not allowed to be cut, the same arrangement existed in Lonagri block with an area of 697 acres in Katangi, and has been in force since December 1873. From the last mentioned date the Mahoolgondi block, with an area of 1,187 acres, situated near the Weinganga, has been closed against all cutting; grazing and the removal of minor produce alone being allowed.

205. The Garaghat Bichwa block, with an area of 8,086 acres, has since November 1875 been subject to the same protective measures as the block last mentioned.

It is also reported that the Bhandamurri and Saleburra blocks, comprising 9,718 and 4,048 acres, situated between the Weinganga river and the Seoni border, have been closed during the current year.

It will thus be observed that of the 942 square miles of unreserved forest in Balaghat, 116 square miles are subject to protective measures, more or less complete.

206. There was no change in the system of realizing the revenue, which is commutation in the wilder, and the license system in the more populous parts of the district.

207. The following is a comparative Statement of the receipts and charges for the past five years :—

	1873-74.	1874-75.	1875-76.	1876-77.	1877-78.
	Rs.	Rs.	Rs.	Rs.	Rs.
Receipts	21,293	22,587	26,163	25,749	29,750
Charges	4,302	4,691	5,193	5,196	5,299
Surplus ...	16,991	17,896	20,970	20,553	24,451

These figures show satisfactory progress in the development of the revenue. The increase in the past year was partly due to larger realizations on account of minor produce, which were effected by a good crop of hurra and the higher price which this product now commands.

Hoshangabad District.

208. The area of the unreserved forests remains the same as at the close of the previous year.

209. In this district also the Deputy Commissioner has had at his disposal the services of an officer of the superior Forest staff to assist in the Forest administration, Mr. Thomas, Assistant Conservator, having been nominated for this duty in July 1877.

210. A few cases were detected in which the Government forest area had been encroached upon; the skeleton forest maps which the Assistant Conservator is now preparing will be useful in keeping a check over the boundaries where they adjoin private estates.

211. The protection of the forest to the extent secured is mainly effected by the arrangements for the collection of the revenue and the prohibition to cutting wood of the reserved kinds without special permission and under special supervision.

212. The practice of giving purchasers one license for a large quantity or for different classes of produce removable at intervals throughout the year has been discontinued, and purchasers are now required to take licenses for fixed quantities removable at one time, so that the license may be recovered as the produce goes out. This arrangement dispenses with the necessity of the Naka Moharirs writing on the licenses the quantity of produce removed under them. Efforts have been made to check waste by more closely controlling the class of produce removed as fuel and guarding against lopping by herdsmen, by preventing their carrying axes in the forest.

213. According to the divisional Statement submitted to this office the yield of the forests in the more important products is as follows :—

Description of produce.	4 Bullock carts.	2 Bullock carts.	Jotees	Head loads
Building wood	769	47,737	46	1,015
Firewood	1,167	71,696	313	2,084
Bambus	24	2,445	...	973
Grass	4	1,715	...	797
Total ...	1,964	1,23,634	359	4,869

Besides the above quantities were removed 13,596 logs and poles of teak, anjan, saj and bija, of which 13,417 were teak poles.

214. In 9 cases 18 persons were prosecuted for breach of Forest rules, and the conviction of 17 persons secured. There were also 264 petty cases in which 343 persons were involved, but were exempted from prosecution on payment of enhanced rates. Of the latter 78 cases were on account of grazing without licenses; the remainder were cases of the unauthorized removal of forest produce.

215. The current rates, especially those on bambús, were found to be very low, and an enhancement was proposed and will probably be effected.

216. There were no less than 185 license vendors. With so large a number the remuneration derived by each must be far too small to induce the men to take any interest in their work; moreover the check of the transactions of so large a number of individuals is no easy matter, and it is believed to have been hitherto but imperfectly accomplished. It has therefore been proposed to reduce the number to 30, which will give about one license vendor to every 5 miles in the length of the district, and should be sufficient to meet the convenience of the people.

Attention has been paid to the compilation of useful forest maps. With the assistance of the regular survey sheets maps of the forest tracts of Sohagpur, Harda and part of the Hoshangabad Tahsils have been completed.

217. The following is a comparative Statement of the receipts and charges for the past five years:—

	1873 74	1874-75	1875 76	1876 77	1877-78
	Rs.	Rs.	Rs.	Rs.	Rs
Receipts	38,858	42,085	40,222	43,105	41,227
Charges	11,934	12,081	11,970	11,813	11,352
Surplus ...	26,924	30,004	28,252	31,292	29,875

The receipts for 1877-78 though lower than those of the previous years are not below the average for the preceding four years. The surplus has been affected by the charge on account of part of the divisional Forest officer's pay and traveling allowance being debited to these forests.

Nimar District.

218. The area of Nimar district forests was diminished during past year by the reservation of the Khandwa and Chandgarh tracts, with an area of 152 square miles.

219. The Deputy Commissioner has had the advantage of professional assistance in the management of the unreserved forests, Mr. Fernandez, Assistant Conservator, having been posted to the Nimar Division, and placed under his orders in July 1877.

220. From the divisional report there is reason to believe that there are many cases in which the Government forest lands have been encroached upon; but these cases can only be gradually enquired into and set right. The matter is receiving attention.

221. During the year under report there were 8 prosecutions for breach of Forest rules in which 13 persons were involved; in 7 of these cases 12 persons were convicted and punished. Petty cases of removal of produce or grazing without license were disposed of by requiring payment of enhanced rates.

222. In the arrangements for the realization of the revenue no change has taken place, commutation and the special license system both continuing in force.

223. The rates current for produce removed under special license were after due consideration enhanced with the view of making them correspond more closely with the value of the produce taken.

224. Teak poles to the number of 24,524 cut in the previous year were collected and brought to depôt during the year under report, at a cost of Rs. 410. It has not been possible to ascertain the total out-turn of material from these forests. About 7,000 commutation licenses for grass, fuel and fencing material were sold; and the commuting population is estimated at 70,000 or $\frac{1}{3}$ of the total population of the district. That commutation is wasteful, and open to abuse, is now generally admitted, and its operation in Nimar will probably be at any rate materially restricted. The realizations on account of minor produce, such as mhowa, gulli, chironji, gums &c., is very small, amounting to only Rs. 550, but the District Officer remarks that this is not much to be regretted, as a large number of the lower castes, such as Bheels, Bulahis, &c., subsist almost entirely on minor forest produce; and that were it possible to make them pay for what they used, the effect would be simply to drive them from the district altogether.

225. The following is a comparative Statement of the receipts and charges for the past five years:—

	1873-74	1874-75	1875 76	1876-77	1877-78.
	Rs.	Rs.	Rs	Rs.	Rs.
Receipts ...	38,557	47,515	46,742	43,294	39,718
Charges ...	10,737	10,354	11,337	12,814	14,227
Surplus ...	29,820	37,161	35,405	30,480	25,491

The surplus of the past year has been reduced by the charge on account of part of the Assistant Conservator's pay and travelling allowance; but the gross receipts fall short of those for the preceding years. The effect of high prices on the revenue from the reserves has already been adverted to, and it is more than probable that the same cause tended to keep down the receipts from the unreserved forests. It is, however, satisfactory that receipts for 1877-78 do not fall short of the average for the past five years.

226. It appears that produce to the value of Rs. 250 is supplied anually to the public pound free of charge; that fuel to the value of Rs. 113 is annually supplied to the Municipal pumping engine at Khandwa on a commutation license purchased for one rupee; and that a sum of Rs. 251-7-0 is annually paid out of the forest revenue to the Municipality of Asirgrah. Taking these items into account the value of the year's transactions was Rs. 613 more than shown in the accounts.

227. It is observed that the Municipal dues levied at Khandwa and Burhanpur on fuel, grass, building-wood and bambús amount to from 25 to 33 per cent of the purchase money at forest rates; but whether or not these comparatively heavy dues have any appreciable effect on the forest receipts is uncertain.

228. There has been no change in the unreserved forest area in this district, which is still 860 square miles and 240 acres.

Betul District.

229. To assist in the Forest administration the services of Mr. Leeds, Deputy Conservator, were placed at the disposal of the Deputy Commissioner in July 1877.

230. There were 6 prosecutions for breach of Forest rules, and 6 out of the 7 persons accused were convicted Double dues were levied in petty cases, but the number of cases thus dealt with has not been given in the Divisional report.

231. It is reported that in the south of the district the Government forests have of late years been very much worked out; efforts are being made to check waste by restricting the class of material that may be taken as fuel or for fencing. The cutting of bambus in the blocks in the south, bordering on Berar, has been stopped. Better arrangements are said to have been introduced to check the distribution and sale of licenses, and a new scheme for the management of the forests is said to be before the Commissioner.

232. The following is a comparative Statement of the receipts and charges for the past five years:—

	1873-74.	1874-75	1875-76	1876-77	1877-78.
	Rs.	Rs.	Rs.	Rs.	Rs.
Receipts ...	49,155	46,418	23,372	22,180	28,445
Charges ...	3,608	4,092	5,018	6,543	14,229
Surplus ...	45,547	42,326	18,354	15,637	14,216

The fall in the receipts up to 1876-77 was explained in the report for that year. The revenue is again on the rise, and there is reason to expect will materially increase. The net results have been diminished on account of control charges not hitherto incurred.

Chhindwara District

233. During the year under report 1,319 acres, on account of a clearance lease which had previously been resumed, was given back to the lessee, and 538 acres were transferred to the Betul District, the area remaining at the close of the year was therefore 641 square miles 181 acres. Included in the area of the unreserved forests are 12,079 acres under "burra" cultivation, which is only worked for three years.

234. Circumstances only admitted of a Forest Officer being attached to this district for a very short time during 1877-78.

235. From the Forest Officer's report and the District Officer's remarks thereon, there appears to be some uncertainty regarding the limits of the Government waste or of the private estates adjoining them, and it is stated that the examination and checking of boundaries is now receiving attention.

236. The taking up of fresh land for "burra" cultivation was provisionally stopped during 1877-78.

237. There were 14 prosecutions for breach of Forest rules in which 19 persons were accused. In 14 cases 17 persons were convicted. Double dues were taken in cases of grazing without licenses.

238. People of the district are allowed to commute at Rs 1 per house for the supply of fuel and grass; but the number that avail themselves of this arrangement is limited. The right to collect or take dues on minor produce is farmed; while for wood, bambús, &c., the license system is in force.

239. Some of the more accessible forests are said to have been much worked out, and it is stated that even teak has not escaped. The Assistant Conservator attributes the excessive cutting of teak to the low rates that formerly prevailed (Rs. 3 per 100 poles); but the District Officer is of opinion that cutting without permission must formerly have gone on. The condition of these particular tracts will be enquired into during the current season or as soon as sufficient information regarding them has been gathered by the Divisional Officer to admit of the Conservator inspecting them without waste of time.

240. The receipts and charges for the past five years are as follows :—

	1873-74.	1874-75.	1875-76.	1876-77.	1877-78.
		Rs.	Rs.	Rs.	Rs.
Receipts ...	16,369	21,622	29,065	26,356	29,250
Charges ...	1,572	1,669	3,441	7,560	9,851
Surplus ..	14,700	18,181	21,505	16,603	19,399

The total receipts are Rs. 29,250 more than those for the previous year, but are about the same as the realizations in 1875-76.

Narsinghpur District.

241. The area of the unreserved forests has been increased from square miles 192 acres 332 to square miles 193 and acres 192 by the resumption by Government of 3 clearance leases.

242. There were 27 prosecutions for breach of Forest rules involving 42 persons, of whom 37 were convicted.

243. The system of realizing the revenue was the same as in the previous year; grazing dues were reduced for buffaloes from 4 to $3\frac{1}{4}$ annas, for cows and bullocks from 2 to $1\frac{1}{2}$ annas per head, apparently with the view of inducing people to graze in the Government forest, instead of sending their cattle to private forests and other districts.

244. In the previous year the District Officer noted that the cutting of teak required to be stopped for a time, but through some oversight it appears to have been continued. The District Officer comments on the very low rates charged for this class of produce.

245. Regarding the yield of the forests no data are available, but the number of persons whose wants in forest produce were supplied from the forests is estimated at 15,500.

246. The District report leads to the conclusion that the revenue system is not altogether satisfactory ; but as the subject is being taken up by the Commissioner it is unnecessary to say more regarding it.

247. The receipts and charges of the past five years are as follows :—

	1873-74.	1874-75.	1875-76.	1876-77.	1877-78.
	Rs.	Rs.	Rs.	Rs.	Rs.
Receipts ...	9,460	9,927	11,462	9,055	12,059
Charges ...	2,823	2,771	2,821	2,742	2,829
Surplus ...	6,637	7,156	8,641	6,313	9,230

The figures for 1877-78 contrast favourably with those of the four preceding years; but the receipts were brought up to a great extent by the cutting and sale of teak.

Jubbulpore District.

248. The area of the unreserved forest was reduced to 329 square miles 27 acres by leasing out 92 acres of good land previously under the plough.

249. There were 25 prosecutions for breach of Forest rules in which 41 persons were involved, and in 23 cases 32 persons were convicted.

250. The following is a Statement of the areas under protection against cutting:—

Serial No.	Name of tracts.	Number in maps	Date when reserved.	Area in acres.
1	Paraspani ..	71	January 1875.	762
2	Gadheri ...	70	Do.	1,033
3	Kakartolla ..	72	Do.	652
4	Purwa ...	9	Do.	785
5	Richai ...	8	Do.	653
6	Kukri Kera ...	7	Do.	486
7	Kurmi ...	6	Do.	615
8	Sakri	66	February 1876.	901
9	Chotti chatri ...	63	Do.	520
10	Bari chatri ...	64	Do.	1,555
11	Kaka bai ...	79	Do.	285
12	Samabah ...	80	Do.	550
13	Marira ...	57	Do.	1,102
14	Senawal ...	52	Do.	1,012
15	Baghreji ...	51	Do	1,305
16	Parariya ...	4	26th March 1878.	665
			Total ...	12,882

251. In the system of realizing the revenue no change has taken place, but it is proposed to abolish the leasing system in the Murwara Tahsil, and the Deputy Commissioner notes that to equalise the demand he has ordered the levy of double dues on the produce of all Government forests within 20 miles of Jubbulpore.

252. The following is a comparative Statement of the receipts and charges for the past five years :—

	1873-74.	1874-75.	1875-76.	1876-77	1877-78.
	Rs.	Rs	Rs.	Rs	Rs.
Receipts ...	17,842	19,836	18,169	16,443	19,062
Charges ...	1,806	2,889	2,936	1,679	3,286
Surplus ...	16,036	16,927	1,5773	14,764	15,776

The receipts of the current year show a satisfactory rise, which can only be attributed to closer supervision. The charge on double dues in forests within 20 miles of Jubbulpore can scarcely have had a very appreciable effect. The fluctuations in the receipts have not been explained; but the decrease in the two preceding years is probably due to the closing of portion of the forests against cutting.

Saugor District.

253. Transfers to the reserves reduced the area of the unreserved forests by square miles 4 and acres 352; while the resumption of 10 clearance leases for 6 square miles and 449 acres raised the area at the close of the year to 731 square miles and 550 acres.

254. There were 46 prosecutions for breach of Forest rules, in which 92 persons were charged and 82 convicted.

255. In the forest tracts lying between the Damoh and Narsinghpur borders, the Saugor and Narsinghpur and Saugor and Damoh roads and an imaginary line running from Surkhi on the former to the iron bridge on the latter road, the system of requiring payment for fixed quantities of forest produce was introduced. This arrangement was most desirable in the interests of the forests, and it was followed by one of greater importance, viz. the introduction of some system in working.

256. The forests within the limits above referred to, with the exception of a few small detached areas were divided into five blocks, which were again sub-divided into compartments, (natural features being of course adopted as limits) as follows:—

Number of Block.	Number of compartments in each block.	Number of compartments open for cutting.	Period for which opened Years.
I.	10	2	3
II.	10	2	3
III.	10	2	3
IV.	5	1	3
V.	4	1	4

Under this arrangement each block will have 12 years' rest after working before being again returned to. This must, however, be looked upon only as a preliminary arrangement, subject to revision, as a greater knowledge of actual requirements is obtained. How far this arrangement will affect the receipts it is impossible at present to say, but they must tend to the maintenance and probably to the improvement of the forests.

257. The receipts and charges for the past five years were as follows:—

	1873-74	1874-75.	1875-76.	1876-77.	1877-78.
	Rs.	Rs.	Rs.	Rs.	Rs
Receipts ..	26,779	43,726	34,738	34,009	36,576
Charges ...	3,033	4,673	4,065	3,961	9,338
Surplus	23,740	39,053	30,673	30,048	27,238

Allowing that the receipts for 1874-75 were enhanced by nearly Rs. 8,000 by the realization of outstandings on account of the previous year, it is evident that the forest revenue is steady. Any material rise could scarcely be expected till the people have become accustomed to the protective arrangement now being introduced, or until, as suggested by the Commissioner, the rates for forest produce are gradually raised; but in the latter case a slight diminution in the receipts would probably be the fore-runner of the increase, as there is a considerable extent of private forest that can be drawn upon.

Damoh District.

258. The free grant by Government of 662 acres of land reduced the unreserved forest area to square miles 856 acres 618.

259. There were 4 cases of breach of Forest rules, in which 10 persons were prosecuted and 9 convicted.

260. During the year under report some exchanges of land were effected with the view of making the Government forest area more compact; and the plots previously given under clearance leases, the conditions of which had not been broken, were properly demarcated.

261. Under Colonel Thompson, Deputy Commissioner, great efforts have been made for the conservation of the unreserved forests of this district; and I will quote here what this officer has himself written on the subject in his report for the past year:—

"A quantity of Saj, Londya and Bambu have been planted during the year under report in the plot called the "Kishen Talaiya" reserve near Damoh, which is reserved from commutation. Some 450 trees are still living and doing well, despite the very unfavorable season. The bambus are thriving and will prove most valuable, situated so near Damoh. An experiment has also been made with Carob seeds, which have germinated. We have 56 young Carob trees 3 inches high, which are being carefully watered. Nothing has yet been done for the tank of which I spoke last year is worth repairs. But a well dug in the plantation of bambu below the "Kishen Talaiya" is yielding a good supply of water, which is most useful for the seedlings, &c.

"Notwithstanding the very unfavorable season the "Kishen Talao" reserve is doing well, a great number of young trees are coming up, and if the cutting can be prevented for 5 or 6 years, much will be done towards the retention of moisture in the hills, and the formation of springs which have now been dried up owing to the complete denudation caused by the unchecked and unlimited cutting of many years. In parts capital firewood reserves can ultimately be formed, to be opened in rotation, and in parts reserves for the supply of building timber may be formed.

"We have also had some success in the attempt to get the "Nowguzza" Hill, that situated behind the Police lines, clothed with vegetation and trees. This, as I before mentioned, was suggested by Mr. Grant when he was Commissioner. In the ravines all over it and round the base of the hill there are thick clumps of "Tendoo" (Ebony) and other jungle trees, and some "Neem" and other trees also are springing up here and there on the top. If the experiment is persevered in and conservation rigidly carried out, I am sure it will be possible to get the whole hill thickly clothed with trees in the course of a few years. The clumps are widening yearly, and there is now a kind of coating of soil forming round the trees and where the grass is left which retains moisture and must help the process of vegetation enormously.

"The number of jungle fires is again smaller than last year, but some of them have been very destructive indeed, I am sorry to say. The worst occurred in February and March, during the time when cattle drovers and carriers were passing to and from the Garrakhota fair. The fires appear to have been all caused by these men and other travellers cooking on the edge of the forest near nallas, or carrying fire with them through the forest. I am glad to say that a great portion of our best forest in the south near Taradehi has escaped, as also the whole I may say of the Northern forest. In the latter case the escape seems to have been due entirely to the precautionary measure of burning a good broad line along the borders of the Native states and along the various lines of communication through the forest, which was done in October.

"There has been only one fire in the whole of the Northern forest, and it was put out very easily in the edge of one of the burnt lines. The same precautions were unfortunately not adopted in the Southern and Central forests, owing to a mistake in the order; and there have been, as I before noted, some disastrous fires originating, as I described above, or in the Saugor district. Some 10 fires came from that direction; most of them were met on the border and stopped; but in 2 or 3 instances they were not taken in time and spread to immense distances.

"A great portion of the reserve near Damoh which we last year saved was this year burnt. I am afraid by an incendiary; but the case could not be proved. The part near the "Kishen Talao" plantation was, I am happy to say, saved. I have arranged for the cutting of lines round all the blocks and along all the chief lines and communication through the forest this year in October; and I am in hopes that the number of fires may be still greatly lessened. I think that we quite carry the Malguzars and villagers with us in the matter, with the exception of the Gonds and the Shikaries. The Malguzars of jungle villages are always in dread of fires, and have lines burnt right round their villages early in the open season. They do not care to help to extinguish bad fires, being lazy and apathetic; but are glad to help in any arrangement that can be carried out without much personal exertion, which will tend to prevent the spread of fire. This kind of arrangement is not, I think, a waste of energy, and once fairly started it can be carried on year after year without much trouble. The benefit to the forests of this district of any arrangement which will cover and shelter the sources of springs, &c., will be enormous."

262. To what extent attention has been paid to the revenue arrangements is best illustrated by the fact that the receipts under every head show an increase. The increased establishment sanctioned tended greatly to check, though it has not entirely put down grazing without license, and some trifling increase of establishment for this purpose may still be found necessary.

263. A proposal is made by Colonel Thompson and supported by the Commissioner for restricting the lines of export from some of the Southern forests, by making the forests accessible to carts and thus reducing the temptation and necessity of using other means, and consequently other routes for transport. The proposal is a good one and merits consideration.

264. Regarding the rates charged in Damoh, the Commissioner, Jubbulpore Division, offers the following remarks:—

"As to the rates enforced in Damoh some misunderstanding arose last year. The Chief Commissioner in para. 26 of his review spoke of them as if they were higher than those charged elsewhere. A comparison will show that the reverse is the case. The timber rates are higher certainly than those in Saugor, but the Saugor tariff appears too low, and I am endeavouring at the present time to find out how the Deputy Commissioner of Saugor can justify them. It is quite impossible to assimilate rates everywhere, as the situation of the forest, its nearness to a market, the quantity of adjacent private forests, and several other matters, such as the character of the roads, means of transit, and the like, all come into play. Still there are variations which at first sight seem preposterous and the matter is under investigation."

265. The receipts and charges for the past five years were as follows:—

	1873-74.	1874-75.	1875-76.	1876-77.	1877-78.
	Rs.	Rs.	Rs.	Rs.	Rs.
Receipts ...	25,883	25,136	27,620	32,559	37,860
Charges ...	2,396	2,912	3,660	5,548	8,051
Surplus ...	23,487	22,224	23,960	27,011	29,809

These figures show most satisfactory results, the gross and net receipts having both increased, the former by nearly Rs. 12,000, the latter by nearly Rs. 6,500 in the space of four years.

266. No change has taken place in the area of the unreserved forests, which still stands at 749 square miles and 553 acres.

Seoni District.

267. The system of demarcation is not so elaborate as in the reserves, but the forest tracts are generally defined by a cleared line 10 feet wide in addition to the ordinary "Chubutras" and stone marks set up on village boundaries. Some work was done during the year in maintaining these boundary lines to prevent encroachment on the Government area, but some of them are said to be much over-grown and to require clearing.

268. In 14 cases 52 persons were prosecuted for breach of Forest rules. Two cases were dismissed; but in the remaining twelve 43 persons were convicted. Some minor offences were compounded by allowing the people to pay higher rates.

269. The conservation of the forests depends at present mainly on the revenue system. There were some changes in the system of realizing the revenue, which are described in the following extract from the Divisional report:—

"During the year under report certain alterations were made in the old method of supplying the requirements of the people. These were (1), the abolition of all commutation in certain forests of the Seoni Tahsil; (2), the restriction of commutation in all cases to certain articles; and (3), the limitation of the quantity to be taken by

each person under his commutation permit. Where commutation was done away with the people were obliged to obtain a license for the exact quantity of material they required; and paid for the same at the rate charged to traders; and where the commutation system continued in force, the duties were levied, according to the status of the individual, on his plough if a cultivator, and if not on his house. The dues varied in the former case from Rs. 0-4-0 to Rs. 0-8-0 and from Rs. 0-2-0 to Rs. 0-3-0 in the latter The commuters were allowed to remove for their own requirements the following articles, viz : —

Cultivators.	Non-cultivators.
25 Poles.	3 Carts fuel.
50 Bambus.	2 Carts grass
6 Carts fuel.	2 Head loads of fibre.
1 Cart grass.	5 Head loads of leaves.
10 Head loads of bark or fibre.	1 Cart of fencing wood.

It was, however, afterwards found expedient to allow people to commute for dead-wood as fuel, grass and leaves for thatching, bark, fibre and fencing material from the tracts to which the special license system had been applied. The general application of the license system is contemplated; the licenses are to be for fixed quantities and to have a fixed money value before issue to the tenders, and to be rendered intelligible to those purchasers who are unable to read by the use of colors and symbols.

270 The following is a comparative Statement of receipts and charges for the past five years:—

	1873-74.	1874-75.	1875-76.	1876-77	1177-78.
	Rs.	Rs.	Rs.	Rs.	Rs.
Receipts ...	35,569	34,094	34,758	52,771	43,381
Charges ...	4,226	4,133	5,039	5,482	7,622
Surplus ...	31,343	29,961	29,719	47,289	35,759

In paragraph 127 of the report for 1876-77 it was explained that the receipts of that year were enhanced by the realization of out standings. Allowing for this fact it is evident that the revenue is still on the increase.

271. The area of the unreserved forests which underwent no change during the year is square miles 2,118 acres 194.

Mandla District.

272. There were only 8 prosecutions for breach of Forest rules, in which 10 persons were involved and 9 convicted

273. Pending sanction to a stronger establishment some improvement was, as a temporary measure, made in the arrrngements for collecting the grazing dues. These arrangements, though far from perfect, resulted in the realization of a larger revenue. Of the increase, however, a large portion is believed to be on account of the previous year.

274. During 1877-78 some old teak logs collected in the previous year were rafted to Gwarighat, and 88 were brought from the forest to river. Ten of the logs taken down containing 207 cubic feet sold for Rs. 403.

275. The auction sales of the right to collect such minor products as are articles of trade proved more satisfactory than in the previous year, bringing in Rs. 3,527 against Rs. 1,583 realized in 1876-77.

276. The following Statement exhibits the receipts and charges for the past five years:—

	1873-74	1874-75.	1875-76.	1876-77.	1877-87.
	Rs	Rs.	Rs.	Rs.	Rs.
Receipts ...	24,782	26,173	23,219	28,784	39,587
Charges ...	4,461	4,286	3,954	4,322	7,773
Surplus ...	20,321	21,887	19,265	24,462	31,814

The only definite conclusion to be drawn from these figures is that the Mandla unreserved forests are capable of bringing in a much larger revenue than they have done in previous years. It is believed that some new arrangements for the management of the forests have recently been sanctioned which will tend to increase the receipts considerably. Hitherto the revenue has been chiefly from grazing, but the people who paid grazing dues were exempted from paying for the wood consumed by them The forest tracts on the Nerbudda should, and doubtless will, bring in a very good return from bambús and small wood, while in the less accessible forests hurra, of which the yield must be very considerable, should bring in a large profit; and if the District Officer's idea of collecting this important and valuable product on account of Government is carried out, it it should, I think, bring in a much larger profit than will be obtained by leasing.

277. The area of the unreserved forests is the same as at the close of 1876-77, viz. square miles 1,377.

Raipur District.

278. There were 14 prosecutions for breach of Forest rules involving 25 persons, of whom 23 were convicted. In 44 cases of petty offences in which 252 persons were concerned, double dues were levied under order of the District Officer.

279. During the past year both the license and commutation systems were in force, while the usufruct of small blocks and the right to collect or take dues on certain classes of minor forest produce were leased.

280 Owing to there being no guarantee that the produce removed under commutation license was only applied to the purposes for which it was granted, the commutation system has been abolished and in lieu thereof annual licenses for a liberal and sufficient supply have been issued at the same low rates as those at which the commutation licenses were sold. The people are now restricted to the quantities specified in these licenses, the quantity of produce removed being entered on the licenses by the checking establishment as the produce goes out. It was also arranged that when more than one adult married couple live together as one family the payment of Re. 1 should be held to cover the requirements of the head of the family only, an additional eight annas being charged for each additional man and wife.

281. From the benefit of the annual licenses the rich and well-to-do people for whose advantage commutation was not intended were excluded, and they were required to take out special licenses for fixed quantities.

282. The following is a comparative Statement of the receipts and charges for the past five years:—

	1873-74.	1874-75.	1875-76.	1876-77.	1877 78.
	Rs.	Rs.	Rs.	Rs.	Rs.
Receipts ...	25,264	33,394	39,044	39,305	48,657
Charges ...	5,278	4,540	4,780	5,396	5,493
Surplus ...	19,986	28,854	34,264	33,909	43,164

Of the total increase of Rs. 9,351 in the receipts over those for 1876-77, about Rs. 1,000 were on account of the recovery of commutation fees for 1876-77. The actual increase of Rs. 8,351 is mainly due to the exclusion of the rich from the privilege of taking annual licenses and charging higher rates, when more than one family living together made use of one license. The net results have risen in four years from Rs. 20,000 to Rs. 43,000.

Bilaspur District.

283. The area of the unreserved forests is the same as at the close of the previous year, viz 649 square miles.

284. In 3 cases 3 persons were prosecuted for breach of Forest rules, but one only was convicted. There were also prosecutions under the Penal Code which have been omitted from the District Form No 48; several of the latter cases appear to have been quashed by the Judicial Commissioner on technical grounds.

285. In consequence of the depreciation in the value of lac, the receipts obtained from this source have diminished. They did not, however, at any time amount to above Rs. 1,500.

286. The arrangement introduced some years since of giving certain privileges to squatters for protective duties in the forests has not proved satisfactory, nor is it likely that such an arrangement could give satisfactory results, except when very close supervision is possible.

287. The receipts and charges for the past five years were as follows:—

	1873-74.	1874-75.	1875-76.	1876-77.	1877 78.
	Rs.	Rs.	Rs	Rs.	Rs.
Receipts ...	11,510	12,102	13,467	12,082	14,501
Charges ...	1,314	2,611	2,275	2,357	2,481
Surplus ..	10,196	9,491	11,192	9,725	12,020

A small portion of the past year's realizations were on account of the previous year, and allowing for this circumstance the gross and net receipts have stood at about the same figure for the past three years.

288. The Deputy Commissioner now proposes the introduction of fixed money value licenses, and considers it expedient that the rates charged for forest produce should be raised.

Sambalpur District.

289. In June 1877 the Government waste lands of Sambalpur came under forest management for the first time.

290. The area of these forest tracts is returned as 695 square miles.

291. There were only 2 prosecutions for breach of Forest rules, and in these cases the 5 persons involved were convicted.

292. People desiring to draw on the forest were given the option of taking out special licenses for fixed quantities or of commuting for their yearly requirements; people commuting for their home requirements and those commuting for their yearly requirements for sale being charged at different rates.

293. The preliminary arrangements for the realization of a revenue from these forests occupied some time, and it is not therefore a matter for surprise that the income amounted only to a small sum. The actual receipts were Rs. 3,988, and the expenditure Rs. 803, leaving a surplus of Rs. 3,185.

CHAPTER IV.

GENERAL REMARKS.

Cultivation of exotics

294. The Mahogany still promises to adapt itself to the climate of these Provinces. At Telunkheri there are 37 young trees, nearly all of which are coming on well; 15 trees are flourishing at Moharli; and 10 trees planted out in the Beemaram reserve continue to grow on, though not so rapidly as at Moharli. In the garden of the Horticultural society, Nagpur, there are also some very promising species. Three trees died in Moharli, but the hot season of 1878 was extremely severe.

295. The narrow leafed iron bark "Eucalyptus crebra" also promises to succeed at Nagpur. Of the trees planted out in the previous year 2 died in the hot season of 1878, and some in very retentive soil are not healthy, but others under more favorable conditions as regards drainage are doing well.

296. The only surviving specimen of "Eucalyptus rostrata" died during the hot months. The black soil derived from trap does not appear adapted to this species, of which the best specimen in Nagpur attained a height of only 4 feet in 3 years; while a tree at Moharli in a sandy soil ran up to about 15 feet in a little over one year.

297. At Seoni the "Eucalyptus globulus" now promises to succeed, at any rate under careful cultivation: there are some trees 1 foot in girth and about 20 feet in height which have withstood the past hot season and developed entirely new foliage, while several less promising specimens cut down to the ground are throwing up vigorous new shoots.

298. The experimental cultivation of the "Carob" has been continued, and there are now a number of trees planted out at Telunkheri besides a number in other parts of the Provinces. In the cultivation of the tree there is no difficulty except in transplanting but whether or not they will give any greater yield of fruit than the trees hitherto reared remains to be proved.

299. A number of plants of the Mesquit bean have been raised from seed recently supplied. The seed had been severely attacked by weevils, and an examination of cotyledons of the young plants leads to the conclusion that the seed thus attacked will not germinate. All plants that came up at Chanda and Telunkheri were on examination found to have the cotyledons in a perfect state.

300. The seed of the "Pithecolobium Saman" recently obtained is germinating freely; some young plants, 3 to 4 inches in height are looking healthy and vigorous.

301. Unfortunately, owing to the numerous changes and transfers of officers, the seed "Eucalyptus saligna" supplied from the Botanical garden, Lucknow, in 1877, retained for sowing at Nagpur, was not put down; while the result of experiments with this seed elsewhere has not yet been reported.

302. Before closing this report it is necessary to bring to notice the numerous changes that have told against the season's work. The year commenced with the introduction of changes in the system of accounts, with which both officers and office establishments had to become acquainted. In July the Northern, Western and Pachmarhi divisions were broken up, and accounts and records had to be separated for the five new divisions formed; a task furnishing a considerable amount of work to all divisional officers concerned and also to the Conservator. It was then acknowledged that the staff of officers was insufficient, and another Sub-Assistant was posted to the Provinces, but he had scarcely joined when an officer of experience was summoned to Calcutta for three months and shortly after three officers were deputed for famine duty in Madras, two officers not returning till the close of the year, and one not till May 1878 To make up for this deficiency another officer was appointed to officiate as Assistant Conservator and

posted to the provinces; but two months had scarcely elapsed before one of the trained Assistants was summoned to Calcutta and finally transferred. That such an unprecedented series of changes must most seriously have checked progress will be too apparent to require further explanation. The loss in work resulting therefrom cannot be estimated, but I have no hesitation in saying that it was considerable.

303. The officers of the department have as a body worked hard and well. Of the Deputy Conservators, Mr. Thompson is entitled to my special acknowledgments for the excellent services rendered by him; Captain Losack has also done good service and worked zealously. Of the Assistants, I would specially mention Mr. McKee and Mr. Fernandez, who have continued to merit the very high estimation in which their services have been held.

304. Mr. Smythies was transferred before he had the opportunity of showing fully the fruits of his past year's labours. He has proved himself a valuable officer, and his transfer has been a serious loss to the department in these Provinces.

305. Of the Forest rangers, Mahomed Ghouse, Bajiba, Chunderkumar Chatterji, Mahadeo Rao Pulnaitkar, Khadur Buksh and Nathooram have done best. All these men take a keen interest in their work, but the first five have the advantage as regards knowledge of their profession.

306. This report could scarcely be closed without an acknowledgment of the good service done by my Office Establishment By working beyond regular hours and foregoing recognized holidays alone has this establishment been able to get through the work that it has had to perform.

I have the honor to be,

Sir,

Your most obedient Servant,

J. C. DOVETON,

Conservator of Forests,

Central Provinces.

List of Appendices to the Forest Report for the year 1877-78.

Serial No.	Particulars.	Form No.
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STATEMENTS.

Annual Form No. 45.—(*Prescribed*).

FOREST DEPARTMENT, CENTRAL PROVINCES.

Area of Reserved Forests, 1877-78.

Division or Range.	Name of Forest.	Area on 1st April 1878.		Added during the year.		Excluded or transferred to other heads.		Total on 31st March 1878.		No. and date of Notification of additions and transfers, &c.	Remarks.
		Square miles.	Acres.	Square miles.	Acres.	Square miles.	Acres.	Square miles.	Acres.		
Mandla Division ...	Jagmandal ...	38	183	...	...	...	...	38	183		
	Choharigogarh ...	2	380	...	...	...	...	2	380		
	Banjar valley ...	77	445	...	...	...	1	77	444		
	North Phen ...	10	23	...	12	...	...	10	35		The result of closer computation.
	South Phen ...	71	525	...	2	...	...	71	527		
	Moteenala ...	2	378	...	...	...	...	2	378		
	Keoli Khapa ...	9	536	...	...	...	...	9	536		
	Topla ...	70	...	...	...	...	...	70	...		
	Barela ...	11	113	...	...	...	...	11	113		
	Airi ...	3	230	...	...	...	...	3	230		
Jubbulpore Division ...	Bijeragogarh ...	33	68	...	...	...	...	33	68		
	Singrampur ...	10	155	...	...	...	...	10	155		
Hoshangabad do. ...	Rajaborari ...	250	...	...	...	...	...	250	...		
	Saonligarh ...	100	...	...	...	...	...	100	...		
	Bori ...	37	...	...	...	...	...	37	...		
Betul do. ...	Bowergarh ...	118	...	...	...	...	...	118	...		
	Kamapur ...	166	...	...	...	...	...	166	...		
Nimar do. ...	Kalibheet ...	260	...	...	...	...	...	260	...		
	Punassa ...	143	200	...	...	...	...	143	200		
	Chandgarh ...	...	...	96	...	...	...	96	...		Transferred from unreserved forests.
	Khandwa ...	...	...	56	...	...	...	56	...		
Chanda do. ...	Bemaram ...	19	136	...	...	...	...	19	136		
	Mirkulloo ...	13	159	...	...	...	...	13	159		
	Moharli ...	358	226	...	152	...	...	358	378		By addition of village lands of Panderponi.
Seoni do.	Satpura ...	468	172	...	...	...	...	468	172		
Saugor do. ...	Garahkota ...	4	339	...	...	...	...	4	339		
	Tigora ...	...	459	...	...	...	...	...	459		
	Ranjeer ...	14	521	2	275	...	...	17	156		Transferred from the unreserved forest area.
	Ranipura ...	11	346	1	83	...	...	12	429		
	Hathkhoo ...	28	638	...	634	...	...	29	632		
Eastern Division ...	Hathibari ...	3	203	...	...	...	...	3	203		
	Kantra Nala ...	5	348	...	...	...	...	5	348		
Balaghat District ...	Pandeatola ...	7	480	...	...	...	...	7	480		
Wardha do. ...	Dhuga ...	22	91	...	...	...	...	22	91		
	Pejhne ...	18	291	...	...	...	...	18	291		
	Total ...	2,391	605	156	518	...	1	2,548	482		

Annual Form No 45.—(*Prescribed*).

FOREST DEPARTMENT, CENTRAL PROVINCES.

Area of Unreserved Forests, 1877 78.

Division or Range	Name of forest	Area on 1st April 1878		Added during the year		Excluded or transferred to other heads		Total on 31st March 1878		No and date of Notification of additions and transfers, &c	Remarks
		Square Miles.	Acres	Square miles	Acres	Square miles	Acres	Square miles	Acres		
Nagpur Division ..	Nagpur	390		...	...	.	287	389	353		The result of an accurate computation.
Bhandara District .	Bhandara ..	551		.		..		551	...		
Chanda Division ..	Chanda ..	2,045	414		...			2 015	414		Secretary to Chief Commissioner No 2016-88, dated 24th May 1877. The area of 53 villages leased for ten years.
Wardha District ..	Wardha	159	292	...	...	.	...	159	292		
Balaghat ,, ..	Balaghat ..	975	356	...	...	33	2 7	942	149		
Upper Godavari Distt	Sironcha .	931	345	...			. .	931	345		92 acres given up from Pandaruja forest, in Bargi Pergannah.
Jubbulpore Division	Jubbulpore ..	329	119	...	...		92	329	27		
Saugor Division	Saugor	729	453	6	449	4	352	731	550		1 Area resumed from clearance leases. 2. Included in Ranjer and other reserves.
Damoh District .	Damoh	858	...	1	67	2	89	856	618		Loss of land 1,369 acres due to charitable gift and land given in exchange for villages enclosed by Forests to 707 acres.
Seoni Division ..	Seoni ,,	749	553		...	.	.	749	533		
Mandla ,, .	Mandla	2,118	194	.	...		..	2,118	194		
Betul ,,	Betul	860	240		.	.		860	24		
Chhindwara Division	Chhindwara	644	118	.		2	577	641	181		The difference represents the area of land transferred, 538 acres, to Betul, 1,319 acres clearance lease returned to lessees.
Hoshangabad Division	Hoshangabad	1,222	369		. .	...		1,222	369		
Narsinghpur District	Narsinghpur	192	332	..	500		...	193	192		500 acres resumed from clearance lease.
Nimar Division ..	Nimar ..	1,660	366		...	152	...	1,508	366		152 square miles, the estimated areas included in Chandgarh and Khandwa reserves.
Raipur District ..	Raipur .	1,377	...	..	...	..	. .	1,377	...		
Sambalpur ,, ..	Sambalpur		...	695	...	...		695	...		695 acres now brought under Forest management.
Bilaspur District	Bilaspur	649	..	...	...			649	...		
	Total ..	16,444	311	703	376	195	324	16,952	363		

Form No. 47.—(*Suggested*).

FOREST DEPARTMENT, CENTRAL PROVINCES.

Area of Forest tracts protected from fire during the dry season of 1877-78, (to accompany Report for 1877-78).

Division.	Forest tracts.	Up to 30th June 1877.												Year when protection commenced.
		Area actually protected.	Total cost.			Area attempted to be protected.	Failures.	Actually protected.	Amount expended.			Total cost up to 30th June 1878.		
			Rs.	a.	p.				Rs.	a	p.	Rs.	a.	p.	
Mandla ..	Banjar valley ...	49,725	1,308	12	8	49,495	5,057	44,438	481	5	1	1,790	1	9	June 1875
Do. ...	Moti Nala ..	1,571	82	13	0	1,659	252	1,407	52	12	6	135	9	6	do. 1875
Do. ..	Jagmandal, ..	24,493	17,315	15	8	24,503	242	24,261	351	2	1	17,667	1	9	do. 1867
Do. ...	Chobarigogurh....	1,661	4,466	0	1	1,661	...	1,661	67	8	9	4,533	8	10	do. 1867
Do. ...	Barela ..	7,146	951	4	6	7,153	...	7,153	112	6	9	1,063	11	3	do. 1872
Jubbulpore ..	Singrampur ...	6,545	1,334	13	6	6,555	...	6,555	170	13	0	1,505	10	6	do. 1871
Do. ...	Bijragogarh ..	21,188	2,739	3	8	21,188	...	21,188	566	0	3	3,305	3	11	do. 1871
Hoshangabad.	Rajaborari ...	64,096	955	10	11	94,260	3,770	90,490	425	14	8	1,381	9	7	do. 1875
Do. ...	Saonligarh ..	48,760	713	6	1	48,840	6,027	42,813	243	4	0	956	10	1	do. 1875
Do. ...	Bori ...	23,680	10,778	2	8	23,680	1,600	22,080	615	2	0	11,393	4	8	do. 1864
Nimar ..	Kalibhit ...	13,434	228	12	10	62,080	60,000	2,080	84	6	1	313	2	11	do. 1874
Do. ...	Punassa ...	39,600	1,418	15	10	54,580	2,800	51,780	400	4	4	1,819	4	2	do. 1875
Do. ...	Chandgarh ...	...	...	...	...	61,440	37,040	24,400	158	8	1	158	8	1	1878
Do. ...	Khandwa ...	...	...	...	...	29,440	140	29,300	431	10	0	431	10	0	1878
Betul ..	Bowergarh ...	34,550	1,367	7	2	34,560	3,200	31,360	419	9	1	1,787	0	3	June 1875
Do. ...	Khamapur ...	13,760	138	0	4	16,000	2,880	13,120	73	8	6	211	8	10	do. 1875
Seoni ...	Korai ...	31,210	5,614	7	8	31,210	...	31,210	591	10	11	6,206	2	7	do. 1869
Do. ...	East Pench ...	42,560	2,121	0	4	42,560	80	42,480	524	13	4	2,645	13	8	do. 1875
Do. ...	West do. ...	...	...	...	...	5,120	...	5,120	366	3	6	366	3	6	1878
Chanda ...	Bemaram ...	12,296	5,551	9	11	12,296	...	12,296	884	15	2	6,436	9	1	June 1878
Do. ...	Mirkulloo ...	8,479	1,985	0	4	8,479	...	8,479	1,191	15	9	3,177	0	1	do. 1875
Do. ...	Taroba ...	25,319	2,935	5	7	25,619	...	25,619	1,248	2	10	4,183	8	5	do. 1874
Do. ...	Goverdhun ...	13,532	1,907	9	11	13,817	...	13,817	595	6	1	2,503	0	0	do. 1874
Saugor ...	Garhakota ..	2,899	47	14	1	2,899	...	2,899	8	6	0	56	4	1	do. 1874
Do. ...	Hathkho ...	5,702	479	5	11	10,598	350	10,248	252	11	8	732	1	7	do. 1874
Do. ...	Ranjir ...	1,987	27	13	2	1,987	...	1,987	5	15	0	33	12	2	do. 1874
Eastern ...	Hathibari ...	2,123	2,325	8	8	2,123	...	2,123	135	10	8	2,461	3	4	do. 1870
Do. ...	Kantra Nala ...	3,548	34	4	0	3,548	3,548	...	42	7	3	76	11	3	do. 1876
Balaghat ...	Pandratola ..	4,960	31	0	0	4,960	20	4,940	...	...	...	31	0	0	do. 1872
	Total ..	504,824	66,860	6	6	7,02,310	127,006	575,304	10,502	9	4	77,362	15	10	

Charged in previous years	...	60,849	0 7
Charged in 1877-78	...	10,226	9 0
Charged in 1878-79	...	6,287	6 3
Total	...	77,362	15 10

Annual Form No. 48.—(*Prescribed.*)

FOREST DEPARTMENT, CENTRAL PROVINCES.

Prosecutions for breaches of Forest rules, 1877-78.

Forest Division and Civil District.	Injury to forests by fire.		Unauthorized felling or appropriation of wood and minor forest produce.		Grazing without permission or in tracts in which grazing is prohibited.		Other offences.		Total.			
									Prosecutions.		Convictions.	
	Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	Cases.	Persons.
Mandla Division ...	...	...	...	...	...	...	...	...	...	...	...	...
Jubbulpore do. ...	...	...	...	...	...	...	1	3	1	3	1	2
Hoshangabad do. ...	...	...	...	...	...	...	...	...	...	...	...	...
Betul do. ...	...	..	24	69	21	31	...	...	45	100	44	100
Nimar do. ...	3	11	...	...	...	...	...	...	3	11	3	11
Chanda do. ...	1	24	...	...	...	...	...	...	1	24	1	24
Seoni do. ...	...	...	10	27	...	...	...	...	10	27	8	24
Chhindwara do. ...	...	...	...	...	...	...	...	...	...	...	...	...
Saugor do. .	..	..	1	1	1	1	2	4	4	6	3	5
Eastern do. ...	...	...	...	...	...	...	...	...	...	...	...	...
Nagpur do. ...	...	...	...	...	.	...	...	...	...	...	...	...
Total ...	4	35	35	97	22	32	3	7	64	171	60	166
Nagpur District ...	...	...	11	16	...	...	6	2	17	18	17	14
Bhandara do. ...	...	...	1	4	..	...	...	...	1	4	1	4
Chanda do. ..	...	...	7	9	...	...	...	..	7	9	7	9
Wardha do. ...	...	...	9	17	7	10	1	1	17	28	9	12
Balaghat do. ...	...	..	...	...	...	...	...	...	...	...	...	...
Upper Godavari ..	...	...	...	...	...	...	..	...	...	...	...	...
Jubbulpore do. ...	...	...	7	23	18	18	...	...	25	41	2:	32
Saugor do. ...	..	...	40	93	...	...	...	...	40	93	4(	82
Damoh do. ...	1	1	2	8	1	1	...	..	4	10	3	9
Seoni do. ...	...	...	11	39	3	13	...	...	14	52	12	43
Mandla do. ...	...	...	8	10	...	...	...	...	8	10	7	9
Betul do. ...	1	1	4	5	...	...	1	1	6	7	6	6
Chhindwara do. ..	...	...	14	17	...	...	2	2	16	19	16	17
Hoshangabad do. ..	...	...	9	18	...	...	...	...	9	18	9	17
Narsinghpur do. .	..	..	27	42	...	...	...	..	27	42	2?	37
Nimar do. ...	1	2	5	8	1	1	1	2	8	13	7	12
Raipur do. ...	...	.	11	20	..	...	3	5	14	25	..	23
Sambalpur do. ..	...	..	2	5	..	...	..	..	2	5	2	5
Bilaspur do. ..	...	..	3	3	...	...	..	...	3	3	1	1
Total ...	3	4	171	337	30	43	14	13	218	397	182	332
Grand Total ..	7	39	206	434	52	75	17	20	282	568	242	498

Annual Form No.

FOREST DEPARTMENT,

Summary of Revenue of the different

Budget Heads.	Direction.			Mandla Division.			Jubbulpore Division.		
RECEIPTS.	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.
I.—Timber and other produce removed from the forests by Government Agency :—									
a. Timber	...	...	...	8,583	3	2	78	4	0
b. Firewood and Charcoal	...	...	...	12	8	0	...	...	...
c. Bambus	...	...	...	855	5	3	...	...	...
d. Sandal-wood	...	...	...	...	...	...	...	...	...
e. Grass and other Minor Produce	...	...	...	963	7	5	72	8	3
II.—Timber and other produce removed from the forests by consumers or purchasers :—	...	...	...	...	...	...	2,647	5	0
a. Timber	...	...	...	1,216	15	8	938	8	1
b. Firewood and Charcoal	...	...	...	1,855	12	9	4,372	0	4
c. Bambus	...	...	...	1,108	1	0	651	15	[illegible]
d Grazing and Fodder Grass	...	...	...	32,140	9	7	4,478	6	4
e. Other Minor Produce	...	...	...	3,505	4	7	5,824	5	4
III.—Confiscated drift and waif wood	...	...	...	90	11	3	103	15	6
IV.—Revenue from forests not managed by Government :—									
a. Duty on Foreign Timber and other Forest Produce	...	...	...	...	...	...	...	...	...
b. Revenue from Shared and Private Forests	...	...	...	...	...	...	...	...	...
V.—Miscellaneous :—									
a. Fines and Forfeitures	...	...	...	2	0	0	2	6	0
b. Refunds	...	1,000	0	0	51	1	3	165	14	0
c. Other Sources	...	2,843	5	9	337	8	8	48	8	9
Total Receipts		3,843	5	9	50,722	8	7	19,384	0	9
BUDGET HEADS.									
A.—Conservancy and Works.									
I.—Timber and other produce removed from the forests by Government Agency :—									
a. Timber	...	...	...	7,935	11	1	8	14	9
b Firewood and Charcoal	...	...	...	...	...	...	...	...	...
c. Bambus	...	...	...	981	15	5	...	...	...
d. Sandal-wood	...	...	...	665	4	6	26	8	9
e. Grass and other Minor Produce	...	2	7	0	3,636	0	5	960	9	9
II.—Timber and other produce removed from the forests by consumers or purchasers	...	...	...	...	...	...	...	...	...
III.—Confiscated, drift and waif wood	...	...	...	...	...	...	.	...	...
IV.—Revenue from forests not managed by Government :—									
a Duty on foreign timber and other forest produce	...	...	...	...	...	...	...	...	...
b. Revenue from Shared and Private forests	...	...	...	...	...	...	...	...	...
V.—Rent of leased forests and payments to shareholders in forests managed by Government	...	...	...	...	...	...	..	...	...
VI.—Live and dead stock :—									
a. Purchase of cattle	...	...	...	...	...	...	..	...	...
b. Feed and keep of cattle	...	513	15	11	3,473	10	10	...	...	...
c Plant, tools and instruments	...	...	...	...	259	14	0	...	...	...

49.—(*Prescribed.*)

CENTRAL PROVINCES.

Divisions during the year 1877-78.

Hoshangabad Division.			Betul Division.			Nimar Division.			Chanda Division.			Seoni Division.			Chhindwara Division.			Nagpur Division.			Saugor Division.		
Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.
6,721	4	0	377	13	11	6,062	12	0	35,729	8	9	1,226	12	9	...	...	...	...	...	...	741	8	11
...	...	...	...	...	...	...	...	...	...	...	...	48	15	0	...	...	...	...	...	...	...	...	...
...	...	...	3	0	0	252	0	0	487	7	3	1,740	15	8	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
275	5	8	49	0	0	314	1	6	28	13	4	165	7	3	...	...	...	...	...	...	30	10	8
...	...	...	...	...	...	4,875	12	3	13,581	9	1	19,790	4	6	...	...	...	11,404	3	1	...	...	...
13,481	10	3	6,583	2	0	3,201	2	0	8,522	5	4	5,183	13	10	5,064	4	3	2,332	12	10	1,896	4	3
8,165	10	3	6,363	10	10	2,547	14	8	2,975	1	11	3,152	3	5	3,065	11	9	189	7	0	14,305	4	5
4,140	4	3	2,239	3	8	5,322	15	3	14,616	9	3	11,669	4	4	2,527	2	3	1,602	13	3	695	7	10
23,952	9	6	15,869	10	2	23,776	13	11	3,386	5	7	14,117	14	6	15,252	6	11	...	...	...	20,122	10	11
5,543	12	3	4,082	2	4	2,473	1	10	3,546	7	11	3,325	2	9	1,680	0	3	...	...	...	3,507	15	6
560	7	6	44	9	0	393	11	1	68	3	2	273	12	10	934	1	4	137	8	0	16	12	8
...	...	...	...	...	...	1	8	0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
64	14	6	...	...	...	17	11	0	...	...	...	383	1	11	566	3	8	...	...	...	2	3	0
...	...	...	...	...	...	588	1	5	...	...	...	5	0	10	2	5	2	5	5	8	...	...	...
3,922	5	4	3,415	13	3	5,091	0	6	2,380	6	0	3,040	13	10	157	12	2	249	14	0	566	6	3
66,828	3	6	39,028	1	2	54,918	9	5	85,322	13	7	64,123	11	5	29,249	15	9	15,921	15	10	41,885	4	5
1,739	10	7	124	5	3	1,069	6	1	35,103	14	4	1,019	7	9	...	...	...	...	...	...	272	1	...
...	...	...	...	...	...	...	...	...	...	...	...	13	10	0	...	...	...	...	...	...	...	...	...
146	5	1	62	0	0	83	0	0	148	6	10	1,208	14	3	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
9	11	11	64	15	0	161	4	3	465	11	1	76	14	4	...	...	...	...	...	...	19	7	0
11,165	8	10	5,781	4	7	10,367	2	4	5,210	11	0	6,856	6	7	9,771	2	4	2,890	13	2	5,634	2	4
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	70	0	0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
288	5	0	...	...	...	62	1	6	3,782	9	0	319	1	2	...	...	...	...	...	...	...	...	...
5	0	0	...	...	...	66	14	3	22	0	0	41	11	8	...	...	...	...	...	...	5	11	9

Budget Heads.	Eastern Division.			Bhandara Division.			Wardha Division.		
	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.
RECEIPTS.									
I.—Timber and other produce removed from the forests by Government Agency :—									
a. Timber	50	6	10	...	...	..	151	2	0
b. Firewood and Charcoal	...	...	...	...	...	...	...	...	...
c. Bambus	...		...	...	...	...	...	...	...
d. Sandal-wood	...	...	...	...	...	...	...	...	...
e Grass and other Minor Produce	1	8	0	...	...	. .	...	...	...
II.—Timber and other produce removed from the forests by consumers or purchasers :—	...	...	...	20,258	15	11	..	..	...
a Timber	...	...	...	6,006	3	11	947	14	5
b. Firewood and Charcoal	...	...	...	200	3	0	824	3	5
c. Bambus	...	...	...	...	...	...	6	2	0
d Grazing and Fodder Grass	29	11	0	4,969	0	0	12,821	6	1
e. Other Minor Produce	...	...	...	14,590	0	7	933	7	0
III.—Confiscated drift and waif wood	...	...	...	182	7	6	0	4	0
IV.—Revenue from forests not managed by Government :—									
a. Duty on Foreign Timber and other Forest Produce ...	...	...	..	...	...	...	...	..	...
b. Revenue from Shared and Private Forests ..	...	...	...	...	...	..	...	...	. .
V.—Miscellaneous :—									
a. Fines and Forfeitures	...	...	...	...	...	...	70	9	0
b. Refunds	...	...	...	...	...	...	...	...	...
c. Other Sources	...	...	...	. .	...	...	60	8	0
Total Receipts ...	81	9	10	46,206	14	11	15,815	8	8
BUDGET HEADS.									
A.—Conservancy and Works.									
I.—Timber and other produce removed from the forests by Government Agency :—									
a. Timber	...	..	...	...	...	...	...	...	...
b. Firewood and Charcoal	...	...	...	...	...	...	...	...	...
c. Bambus	8	0	0	...	...	...	...	...	...
d. Sandal-wood	...	..	...	...	...	...	...	...	...
e. Grass and other Minor Produce	8	0	0	...	...	...	8	0	0
II.—Timber and other produce removed from the forests by consumers or purchasers ...	...	..	...	2,388	9	6	3,438	12	0
III.—Confiscated, drift and waif wood	...	...	...	...	...	...	...	...	...
IV.—Revenue from forests not managed by Government :—									
a. Duty on foreign timber and other forest produce ...	...	..	...	...	...	...	...	...	...
b. Revenue from Shared and Private forests	...	..	...	...	...	...	...	...	...
V.—Rent of leased forests and payments to shareholders in forests managed by Government	...	...	...	...	...	...	...	...	...
VI.—Live and dead stock :—									
a Purchase of cattle	...	...	...	...	...	...	...	...	...
b. Feed and keep of cattle	...	...	..	...	...	...	...	...	...
c. Plant, tools and instruments	...	...	..	...	...	...	...	...	...

49.—(*Prescribed.*)—Contd.

Balaghat Division.			Sironcha Division.			Damoh Division.			Narsinghpur Division.			Raipur Division.			Bilaspur Division.			Sambalpur Division.			Total.		
Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.
...	...	...	12	0	0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	59,734	12	4
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	61	7	0
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3,338	12	2
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1,900	14	1
8,683	0	7	...	...	...	...		...	1,762	5	9	...	...	...	1,902	8	0	...	...	...	84,906	0	2
807	8	3	50	8	0	3,737	5	9	1,880	14	9	...	...	...	2,679	1	4	139	15	0	64,670	5	11
1,766	4	6	79	10	1	1,410	7	9	3,143	6	2	24,114	14	9	775	9	3	234	1	10	79,541	10	1
564	15	6	...	...	...	166	7	3	...	...	...	5	8	0	2,104	9	6	6	0	11	47,427	7	5
8,418	2	1	1,846	14	7	15,052	1	11	5,007	0	4	17,694	5	5	5,567	8	3	52	12	3	2,24,556	5	4
5,399	9	6	762	4	6	8,043	5	9	196	14	3	5,641	8	0	1,360	2	11	1,302	0	3	71,717	9	6
76	15	7	738	0	0	20	7	4	68	9	3	...	...	...	...	...	...	...	...	...	3,710	8	0
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	8	0
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
116	13	8	...	...	...	36	8	7	...	...	...	...	...	...	100	8	6	...	...	...	1,363	0	7
8	4	0	...	...	...	0	2	0	...	...	...	0	10	0	...	...	...	...	...	...	1,826	12	4
3,908	10	9	272	5	0	9,393	1	1	...	...	...	1,199	14	9	11	6	0	2,253	7	6	39,153	3	7
29,750	4	5	3,761	10	2	37,859	15	5	12,059	2	6	48,656	12	11	14,501	5	9	3,988	5	9	6,83,910	4	6
...	...	...	1,178	13	9	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	48,452	4	11
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	13	10	0
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2,638	9	7
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1,502	12	10
4,588	10	5	68	2	3	7,180	14	2	2,744	13	6	4,820	14	4	2,480	12	2	803	11	0	90,791	7	8
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	70	0	0
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	8,43	11	5
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	401	3	8

Budget Heads.	Direction			Mandla Division.			Jubbulpore Division.		
	Rs.	a.	p.	Rs.	a.	p	Rs.	a.	p.
BUDGET HEADS.									
A.—Conservancy and Works									
VII.—Communications and buildings.—									
a. Roads and Bridges ...	..	.	..	479	10	6	...	...	...
b Buildings ...	...	..	...	407	1	5	16	15	6
c. Other Works ...	...	..	..	1,747	13	0	...	..	...
VIII.—Demarcation, improvement and extension of forests :—									
a. Demarcation ...	...	...	...	20	8	6	1	4	0
b. Compensation for Land and Rights ...	...	...	...	...	.	...	...	...	...
c. Surveys and Working-Plans ...	...	..	...	33	4	6	...	...	...
d. Plantations ...	2,484	2	7	155	5	11	..	...	...
e. Protection from Fire ...	...	...	...	1,283	14	8	636	1	8
f. Other Works ...	...	..	...	298	13	9	2	1	3
IX.—Miscellaneous :—									
a Refunds ...	...	...	...	...	...	...	..	...	...
b. Law Charges ...	...	...	..	...	...	...	...	..	.
c. Other Charges ...	5	7	0	527	14	6	...		..
Total A.—Conservancy and Works ...	3,006	0	6	21,906	14	7	1,652	7	8
BUDGET HEADS									
B.—Establishments.									
I.—Salaries :—									
a. Conservators ...	14,40	0	0	...	..	...	...	...	...
b. Superior Officers ...	4,28	0	0	11,493	5	4	1,675	0	0
c. Subordinate Forest and Depot Establishments ...	..	...	...	4,049	0	5	1,678	8	4
d. Office Establishments	3,998	15	2	735	15	9	11	0	6
e. Deputation and Special Allowances ...	...	...		...	...	..	...	...	..
II.—Travelling Allowances.—									
a. Conservators ...	1,349	3	0	...	...	...	...	...	...
b. Superior Officers ...	258	0	0	2,791	13	9	212	3	0
c. Subordinate Forest and Depot Establishments ...	...	...	...	...	...	...	...	...	...
d Office Establishments ...	144	5	10	103	8	4	...	...	...
III.—Contingencies :—									
a. Stationery ...	56	10	6	72	11	1	6	15	0
b. Carriage of tents and records ...	393	15	2	632	3	5	100	13	10
c. Pay of Police Guards	...	...	...	...	...	...	..	...	...
d. Sundries	590	11	9	500	9	6	79	8	0
e. Official Postage	306	5	3	46	3	6	11	3	0
Total B.—Establishments ...	25,778	2	8	20,425	7	1	3,77	3	8
Grand Total of Expenditure	28,784	3	2	42,332	5	8	5,427	11	4

49.—(*Prescribed.*).—Contd.

Hoshangabad Division.			Betul Division.			Nimar Division.			Chanda Division.			Seoni Division.			Chhindwara Division.			Nagpur Division.			Saugor Division.		
Rs.	a.	p	Rs.	a.	p	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p
293	1	0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
67	15	6	...	...	...	56	9	8	1,623	10	11	126	2	6	...	...	...	...	...	...	37	4	3
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
																					54	10	0
228	10	8	...	...	...	133	2	0	113	5	0	42	12	3		...	...	113	2	9			
...	...	...	...	...	...	...	...	...	600	0	0	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	470	15	3	308	14	11	...	...	...	...	...	...	0	12	6
11	0	0	31	2	0	409	10	9	...	...	...	193	2	1	...	...	...	...	...	...	110	3	1
912	0	9	414	2	3	869	11	3	4,166	9	9	1,611	4	9	...	...	...	...	...	...	192	4	5
239	3	8	21	2	0	498	10	0	1,424	1	11	972	9	7	...	...	...	...	...	...	260	3	7
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	165	0	0	...	...	...
2	14	0	...	...	...	...	...	...	...	...	...	..	..	...	...	...	...	...	...	...	...	...	...
36	15	6	...	...	...	305	6	7	61	10	0	0	12	0	...	...	...	...	...	...	8	13	6
15,146	6	6	6,498	15	1	14,152	14	8	53,193	9	1	12,791	11	10	9,771	2	4	3,168	15	11	6,595	9	9
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
5,350	0	0	9,480	0	0	3,758	1	0	10,400	0	0	4,597	11	10	...	...	...	1,366	2	1	5,691	14	11
3,686	12	3	3,444	10	6	4,087	5	7	4,089	0	8	5,007	8	8	72	0	0	912	0	0	1,918	0	0
1,004	0	0	391	0	0	381	13	4	922	7	9	684	0	0	...	...	...	...	...	...	323	12	0
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
858	7	0	1,156	7	0	1,611	5	5	2,940	4	0	1,465	13	0	...	...	...	790	12	0	696	8	0
3	15	6	...	...	...	21	7	0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..
215	13	11	110	13	3	105	1	1	192	1	7	203	8	3	...	...	...	...	...	...	75	8	6
89	4	3	24	4	9	133	10	9	78	14	3	67	5	0	...	...	...	...	...	...	19	10	7
788	15	4	746	13	0	479	10	4	830	11	1	524	7	8	...	...	...	7	0	0	438	7	2
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
281	9	9	277	12	3	232	4	5	415	11	10	360	14	1	7	13	6	...	...	...	336	7	11
93	5	0	49	6	6	45	5	0	150	12	0	68	4	0	0	2	0	...	...	..	174	6	0
12,372	3	0	15,681	3	3	10,855	15	11	20,019	15	2	12,979	8	6	79	15	6	3,075	14	1	9,674	11	1
27,518	9	6	22,180	2	4	25,008	14	7	73,213	[illegible]	3	25,771	4	4	,9851	1	10	6,244	14	0	16,270		10

Budget Heads.	Eastern Division.			Bhandara Division.			Wardha Division.		
BUDGET HEADS.	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.
A.—Conservancy and Works.—(*Contd.*)									
III.—Communications and buildings :—									
a. Roads and Bridges ...	...		...	...	...	...	...	...	...
b. Buildings ...	...	...	..	...	...	...	...	...	...
c. Other Works	..	..	...	...	...	...	...	...	...
VIII.—Demarcation, improvement and extension of forests :—									
a. Demarcation	...	...	...	..	...	...	...	...	...
b Compensation for Land and Rights	...	...	...	.	...	...	..	...	...	...
c. Surveys and Working-Plans ...	..	...	...	.	...	...	..	...	...	...
d Plantations ...	...	39	0	0	...	...	...	...	...	...
e. Protection from Fire ...	...	140	7	11	..	...	..	...	...	...
f. Other Works ...	...	373	1	4	10	8	0	...	...	...
X.—Miscellaneous :—									
a Refunds ...	...	.	...	...	...	...	...	...	...	...
b Law Charges ...	...	...	..	...	...	...	...	...	...	...
c. Other Charges ...	...	...	..	...	...	..	...	...	.	...
Total A.—Conservancy and Works ...	565	9	3	2,399	1	6	3,446	12	0
BUDGET HEADS.									
B.—Establishments.									
I.—Salaries :—									
a. Conservators ...	..	...	...	...	...	...	...	...	...
b. Superior Officers ...	..	...	..	.	...	.	..	...	...	...
c. Subordinate Forest and Depot Establishments ...	693	0	0	492	0	0	672	0	0
d. Office Establishments ...	42	0	0	...	...	...	.	...	...
e. Deputation and Special Allowances ..	...		..	...	...	.	...	.	..
II.—Travelling Allowances :—									
a. Conservators ...	...	..	...	...	...	...	...	..	.
b. Superior Officers ...	...	...	.	...	...	...	...	...	.
c. Subordinate Forest and Depot Establishments ...	...	...	...		...	..	4	10	0
d. Office Establishments ...	4	9	1	...	...	...	...	...	..
III.—Contingencies :—									
a Stationery ...	...	.	..	...	...	...	...	...	..
b Carriage of tents and records ...	...	.	..	...	...	..	...	...	...
c. Pay of Police Guards ...	...	.	..	.	...	...	...	...	...
d. Sundries ...	45	0	0	..	...		...	...	...
e. Official Postage ...	...	...		...	...	...	...	...	...
Total B —Establishments ...	784	9	1	492	0	0	676	10	0
Grand Total of Expenditure ...	1,350	2	4	2,891	1	6	4,123	6	0

49—(*Prescribed.*)—*Contd.*

Balaghat Division.			Sironcha Division.			Damoh Division.			Nar-singhpur Division.			Raipur Division.			Bilaspur Division.			Sambalpur Division.			Total.		
Rs.	a.	p.	Rs.	a.	p.	Rs.	a	p.	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.
...	...	..	...	...	...	...	...	...	...	..	.	...	.	...	...	...	...	...	..	...	772	11	6
...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	..	...	..	...	2,335	11	9
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1,747	13	0
38	3	6	...	...	...	..	...	...	...	...	..	...	...	...	...	...	..	...	..	..	745	10	8
...	...	...	...	...	...	...	...	..	...	...	...	...	..	...	...	...	...	...	...	...	600	0	0
...	...	...	...	.	.	...	...	...	...	..	...	...	..	...	...	...	...	...	...	...	813	15	2
...	...	...	...	...	...	95	14	11	...	...	...	...	...	...	...	...	..	...	...	...	3,529	9	4
...	...	...	...	...	...	27	0	0	...	..	...	...	...	...	...	..	..	...	...	...	10,253	9	0
...	...	...	...	.	...	76	9	3	...	...	...	...	...	...	...	..	...	...	..	...	4,177	0	4
...	...	...	...	...	...	...	..	...	...	...		...	...	..	...	..	...	...	...	...	165	0	0
...	...	...	...	.	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	..	2	14	0
...	...	...	...	...	..	...	...	...	...	...	...	...	...	..	...	..	...	...	...	...	946	15	1
4,626	13	11	1,247	0	0	7,380	6	4	2,744	13	6	4,820	14	4	2,480	12	2	803	11	0	1,78,400	9	11
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	.	...	...	...	...	14,400	0	0
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	..	58,092	3	2
672	0	0	507	0	0	670	7	3	84	0	0	672	0	0	...	..	..	...	...	...	33,407	5	8
...	.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	.	...	...	...	...	8,495	1	6
...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...
...	...	...	...	..	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...	1,349	3	0
...	..	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	12,781	9	2
...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...	..	...	80	0	6
...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	..	...	...	...	1,155	5	10
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	549	6	2
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	.	...	.	...	4,943	1	0
...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	..	..
...	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	.	...	...	...	...	3,128	7	0
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	945	4	3
672	0	0	507	0	0	670	7	3	84	0	0	672	0	0	...	...	...	...	...	..	1,39,276	14	3
5,298	13	11	1,754	0	0	8,059	13	7	2,828	13	6	5,492	14	4	2,480	12	2	803	11	0	3,17,677	8	2

Form No. 50.—(*Prescribed.*)

FOREST DEPARTMENT, CENTRAL PROVINCES.

Account Current for the year 1877-78.

		Rs.	a.	p.	Rs.	a.	p.
To Cash balance on 1st April 1878	...	...	...	...	4,073	13	3
„ Revenue received in cash ... Direction	...	3,843	5	9			
Mandla Division	..	50,722	8	7			
Jubbulpore „	...	19,384	0	9			
Hoshangabad „	...	66,828	3	6			
Betul „	...	39,028	1	2			
Nimar „	...	54,918	9	5			
Chanda „	...	85,322	13	7			
Seoni „	..	64,123	11	5			
Chhindwara „	...	29,249	15	9			
Nagpur „	...	15,921	15	10			
Saugor „	...	41,885	4	5			
Eastern „	...	81	9	10			
Bhandara District	...	46,206	14	11			
Wardha „	..	15,815	8	8			
Balaghat „	...	29,750	4	5			
Sironcha „	..	3,761	10	2			
Damoh „	...	37,859	15	5			
Narsinghpur „	..	12,059	2	6			
Raipur „	...	48,656	12	11			
Bilaspur „	...	14,501	5	9			
Sambalpur „	..	3,988	5	9			
					6,83,910	4	6
„ Remittances from State Treasuries	...	...	...	..	3,12,666	4	6

		Rs.	a.	p.	Rs.	a.	p.
By Expenditure under A. ... Direction	...	3,006	0	6			
Mandla Division	...	21,906	14	7			
Jubbulpore „	...	1,652	7	8			
Hoshangabad „	...	15,146	6	6			
Betul „	..	6,498	15	1			
Nimar „	..	14,152	14	8			
Chanda „	...	53,193	9	1			
Seoni „	..	12,791	11	10			
Chhindwara „	...	9,771	2	4			
Nagpur „	...	3,168	15	11			
Saugor „	...	6,595	9	9			
Eastern „	...	565	9	3			
Bhandara District	..	2,399	1	6			
Wardha „	...	3,446	12	0			
Balaghat „	...	4,626	13	11			
Sironcha „	..	1,247	0	0			
Damoh „	...	7,380	6	4			
Narsinghpur „	...	2,744	13	6			
Raipur „	...	4,820	14	4			
Bilaspur „	...	2,480	12	2			
Sambalpur „	..	803	11	0			
					1,78,400	9	11

INTER-DEPARTMENTAL TRANSFERS.

„ Government of India ...	On account of value of instruments supplied by Mathematical Instruments Department.	338	13	6			
„ Government of Madras ..	Amount recovered from Mr. Hooper, Assistant Conservator of Forests, on account of advance made by the Collector of Bellary. ...	350	0	0			
„ Military Department, Bombay ..	On account of Medicines, &c. supplied ...	333	15	3			
„ Government of North Western Provinces ...	On account of leave allowance of Sheik Mohiddin, Sub-Assistant Conservator of Forests, for January and February 1877, written back.	200	0	0			
„ Department Public Works, Central Provinces ...	On account of value of Bungalows at Khandwa and Hoshangabad .	6,148	0	0			
„ Government School of Industry, Jubbulpore, Central Provinces ...	On account of articles supplied ...	515	3	0			
					7,885	15	9

„ Expenditure under B. ...	Direction ...	25,778	2	8			
	Mandla Division ...	20,425	7	1			
	Jubbulpore „ ...	3,775	3	8			
	Hoshangabad „ ...	12,372	3	0			
	Betul „ ...	15,681	3	3			
	Nimar „ ..	10,855	15	11			
	Chanda „ ...	20,019	15	2			
	Seoni „ ...	12,979	8	6			
	Chhindwara „ ...	79	15	6			
	Nagpur „ ...	3,075	14	1			
	Saugor „ ...	9,674	11	1			
	Eastern „ ...	784	9	1			
	Bhandara District ...	492	0	0			
	Wardha „ ...	676	10	0			
	Balaghat „ ...	672	0	0			
	Sironcha „ .	507	0	0			
	Damoh „ ..	670	7	3			
	Narsinghpur „ ...	84	0	0			
	Raipur „ ...	672	0	0			
	Bilaspur „ ...	...	...	...			
	Sambalpur „ .	...	.	...			
	Total ...	1,39,276	14	3	3,17,677	8	2
„ Remittances to State Treasuries ...		...	..	.	6,39,433	8	9

Annual Form No. 50—(*Prescribed*)—Contd.

LAW AND JUSTICE—JAILS.

Miscellaneous.

	Rs	a	p.	Rs.	a.	p.
To Value of Forms printed at Central Jail, Nagpur.	68	11	5			
Do. do. at Chanda Jail ...	66	0	2			
Do. do. at Saugor Jail ...	32	6	10			
„ Value of cotton ropes received from Chanda Jail ...	25	0	0			
„ Value of hemp ropes received from Mandla Jail ...	76	4	0			
„ Value of money bags received from Chanda Jail ...	11	4	0			
				279	10	5
„ Advances recoverable ..	...	...	...	1,37,575	0	5
„ Deposits ..	...	...	..	963	3	10
„ Contributions to funds ... Uncovenanted S. F Pension fund ..	1,969	10	0			
Madras Military fund ...	379	15	10			
General Family Pension fund ...	630	0	0			
Uncovenanted Service Annuity fund ...	2	11	0			
				2,982	4	10
„ Inter-Divisional transfers ...	...	...	...	16,951	3	8

Inter-Departmental Transfers.

	Rs.	a	p	Rs.	a	p.
Military Department... On account of bambus supplied to Officer Commanding 4th Cavalry, Hyderabad Contingent, Hingoli..	150	0	0			
Ditto. ... On account of salai logs supplied to Commissary of Ordnance, Nagpur ...	49	15	9			
By Department Public Works, Central Provinces ... On account of timber supplied to the Executive Engineer, Kanhan Division ...	10,899	13	9			
Do. do. Nagpur Division ...	396	7	9			
Do. do. Jubbulpore Division ...	3,181	9	9			
Do. do. Eastern Division ...	50	0	0			
„ Wardha Valley C. S. Railway ... On account of timber supplied to Nagri Division .	20,959	8	6			
Do. do. to Hingunghat Division ...	1,375	0	0			
„ Holkar & Neemuch State Railway ... On account of value of beeja and dowra sleepers ...	1,176	12	0			

To Revenue from Nazool land ...	On account of grazing collected on Nazool land of the village of Umrodh in the Saugor District for October 1877		9	14	0	By Government School of Industry, Jubbulpore ...	On account of value of sal and teak logs supplied ...	963	3	1			
						„ Normal School, Jubbulpore ...	On account of value of sal logs supplied ...	143	9	7			
„ Suspense account			3,419	11	2	„ District Superintendent of Police, Mandla ...	On account of sal logs supplied ...	175	8	0			
											39,521	8	2
						LAW AND JUSTICE—JAILS.							
						MISCELLANEOUS.							
						By value of raw materials, silk cocoons, supplied to Chanda Jail ...		28	13	4			
											28	13	4
						„ Madras Government.	By pay of Mr. Hooper, Assistant Conservator of Forests, from 1st to 3rd January 1878				48	6	2
						„ Advance recoverable —					1,37,301	12	5
						„ Deposit repaid					784	0	8
						„ Provincial Services. On account of Office rent					1,653	0	11
						„ Inter, Divisional Transfers					16,947	11	8
						ADMINISTRATION.							
						„ Civil Officers of Accounts and Audit, Assistant Comptroller General (Forests)					126	10	8
						„ Suspense accounts					10,920	15	0
						„ Cash Balance on 31st March 1878					6,273	6	6
Total			11,70,717	6	4	Total ...	... ...				11,70,717	6	4

Annual Form No. 51—(*Prescribed*).

FOREST DEPARTMENT, CENTRAL PROVINCES.

Statement of Outstandings and Liabilities on account of Disbursers, for 1877-78.

Divisions.	Department Debtor.			Department Creditor.			Balance due		Remarks.
	At commencement of year.	Recoveries in cash and value of supplies and work done during the year.	At close of year	At commencement of year	Payments made during year.	At close of year	To Department (Outstandings)	By Department (Liabilities)	
	Rs. a p	Rs. a p	Rs. a p	Rs. a p	Rs. a. p	Rs a. p.	Rs. a p.	Rs. a p	
Direction	...	5,938 10 6	5,938 10 6	110 15 2	5,905 11 6	6,016 10 8	78 0 2	...	
Mandla Division	8 10 0	16,015 2 11	16,023 12 11	*1,470 3 1	16,497 15 2	17,968 2 3	1,944 5 4	...	
Jubbulpore do.	...	1,398 13 7	1,398 13 7	...	1,535 1 3	1,535 1 3	136 3 8	...	
Hoshangabad do.		14,287 3 7	14,287 3 7	788 14 6	14,623 4 8	15,412 3 2	1,124 15 7	...	
Betul do.	...	5,808 3 8	5,808 3 8	281 11 2	6,430 0 2	6,711 11 4	903 7 8	...	
Nimar do.	...	4,833 6 9	4,833 6 9	578 15 6	5,685 3 8	6,264 3 2	1,430 12 5	...	
Chanda do.	...	52,917 1 7	52,917 1 7	4,578 3 7	53,269 15 1	57,848 2 8	4,931 1 1	...	
Eastern do.	..	1,319 8 3	1,319 8 3	110 11 8	1,265 15 0	1,376 10 8	57 2 5	...	
Seoni do.	...	16,532 13 8	16,532 13 8	1,055 8 5	15,957 3 4	17,012 11 9	479 14 1	...	
Saugor do.	...	4,459 13 7	4,459 13 7	303 3 6	4,352 4 5	4,655 7 11	195 10 4	...	
Nagpur do.	...	2,223 12 9	2,223 12 9	. ...	2,474 1 9	2,474 1 9	250 5 0	...	
Wardha District	...	18 6 6	18 6 6	... ...	28 6 10	28 6 10	10 0 4	. .	
Bhandara do.		32 8 0	32 8 0	... ..	32 8 0	32 8 0	. . .. ..	...	
Total ...	8 10 0	1,25,785 9 4	1,25,794 3 4	9,278 6 7	1,28,057 10 10	1,37,336 1 5	11,541 14 1	...	

*In the form for 1576-77 Rs. 8 10 were incorrectly omitted, the amount shown being the difference between the outstanding and the liability.

Te Revenue from Nazool land ...	On account of grazing collected on Nazool land of the village of Umrodh in the Saugor District for October 1877..	...	...	...	9	14	0				
„ Suspense account		...	...	...	3,419	11	2				
Total		...	...	...	11,71,441	5	11				

By Government School of Industry, Jubbulpore ...	On account of value of sal and teak logs supplied ...				963	3	1				
„ Normal School, Jubbulpore ...	On account of value of sal logs supplied ...				143	9	7				
„ District Superintendent Police, Mandla ...	On account of sal logs supplied ...				175	8	0				
								39,521	8	2	
LAW AND JUSTICE—JAILS.											
MISCELLANEOUS.											
By value of raw materials, silk cocoons supplied to Chanda Jail ...					28	13	4				
								28	13	4	
„ Madras Government ...	By pay of Mr. Hooper, Assistant Conservator of Forests, from 1st to 3rd January 1878 ...	...	...	...				48	6	2	
„ Advances recoverable	...	...	...	...				1,37,301	12	5	
„ Deposit repaid	...	...	...	...				784	0	8	
„ Provincial Services. On account of Office rents..		..	...	...				1,653	0	11	
„ Inter Divisional transfers	...	..	...	...				16,947	11	8	
„ Transfer charges in reduction of realization of revenue under V b	...	...	...	...				223	15	7	
ADMINISTRATION.											
„ Civil Offices of Accounts and Audit, Assistant Comptroller General (Forests)	...	...	...	...				126	10	8	
„ Suspense accounts	...	...	...	...				10,920	15	0	
„ Cash Balance on 31st March 1878	...	...	...	...				6,275	6	6	
Total	...	...	...	...				11,71,441	5	11	

Annual Form No. 51.—(*Prescribed*).

FOREST DEPARTMENT, CENTRAL PROVINCES.

Statement of Outstandings and Liabilities on account of Disbursers, for 1877-78.

Divisions.	Department Debtor									Department Creditor.									Balance due.						Remarks.
	At commencement of year.			Recoveries in cash and value of supplies and work done during the year.			At close of year.			At commencement of year.			Payments made during year.			At close of year.			To Department (Outstandings.)			By Department (Liabilities.)			
	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.	Rs	a.	p.	Rs.	a.	p	Rs.	a	p.	Rs.	a.	p.	Rs.	a.	p	
Direction	..	..	...	5,938	10	6	5,938	10	6	110	15	2	5,905	11	6	6,016	10	8	78	0	2	...	...	...	
Mandla Division ...	...	8	10	0	16,015	2	11	16,023	12	11	*1,470	3	1	16,497	15	2	17,968	2	3	1,944	5	4	...	...	...	
Jubbulpore do. ...	...	...	...	...	1,398	13	7	1,398	13	7	...	..		1,535	1	3	1,535	1	3	136	3	8	...	...	.	
Hoshangabad do. ...	...	...	...	...	14,287	3	7	14,287	3	7	788	14	6	14,623	4	8	15,412	3	2	1,124	15	7	...	...	...	
Betul do. ...	..	...	...	...	5,808	3	8	5,808	3	8	281	11	2	6,430	0	2	6,711	11	4	903	7	8	...	...	...	
Nimar do. ...	..	...	...	...	4,833	6	9	4,833	6	9	578	15	6	5,685	3	8	6,264	3	2	1,430	12	5	...	...	...	
Chanda do. ...	...	...	...	...	52,917	1	7	52,917	1	7	4,578	3	7	53,269	15	1	57,848	2	8	4,931	1	1	...	.	..	
Eastern do. ...	...	..	...	...	1,319	8	3	1,319	8	3	110	11	8	1,265	15	0	1,376	10	8	57	2	5	...	...	..	
Sconi do. ...	...	..	...	...	16,532	13	8	16,532	13	8	1,055	8	5	15,957	3	4	17,012	11	9	479	14	1	...	...	...	
Saugor do. ...	...	...	...	...	4,459	13	7	4,459	13	7	303	3	6	4,352	4	5	4,655	7	11	195	10	4	...	..	..	
Nagpur do. ...	...	...	...	...	2,223	12	9	2,223	12	9	...	...	..	2,474	1	9	2,474	1	9	250	5	0	...	...	...	
Wardha District ...	..	...	..		18	6	6	18	6	6	...	...	-	28	6	10	28	6	10	10	0	4	...	..	...	
Bhandara do. ...	...	...	...	..	32	8	0	32	8	0	...	.		32	8	0	32	8	0	...	..	-	...	...	...	
Total ...		8	10	0	1,25,785	9	4	1,25,794	3	4	9,278	6	7	1,28,057	10	10	1,37,336	1	5	11,541	14	1	...	...	...	

* In the form for 1876 77 Rs. 8-10 were incorrectly omitted, the amount shown being the difference between the outstanding and the liability.

Annual Form No. 51.—(*Prescribed*).

FOREST DEPARTMENT, CENTRAL PROVINCES.

Statement of Outstandings and Liabilities on account of Contractors, for 1877-78.

Divisions.	Department Debtor.			Department Creditor.			Balance due.		Remarks.
	At commencement of year.	Recoveries in cash and value of supplies and work done during the year.	At close of year.	At commencement of year.	Payments made during yer.	At close of year.	To Department (Outstandings).	By Department (Liabilities).	
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
Mandla Division ...	...	82 14 5	82 14 5	613 9 4	97 14 5	711 7 9	628 9 4	...	
Hoshangabad do. ...	...	81 0 0	81 0 0	921 7 11	100 0 0	1,021 7 11	940 7 11	...	
Betul do. ...	...	...	...	...	30 0 0	30 0 0	30 0 0	...	
Nimar do. ...	...	...	...	38 0 4	...	38 0 4	38 0 4	...	
Chánda do. ...	...	11,597 0 8	11,597 0 8	3,652 8 2	8,987 11 2	12,640 3 4	1,043 2 8	...	
Eastern do. ...	...	...	...	90 9 10	...	90 9 10	90 9 10	...	
Saugor do. ...	...	28 8 0	28 8 0	...	28 8 0	28 8 0	...	...	
Total ...	...	11,789 7 1	11,789 7 1	5,316 3 7	9,244 1 7	14,560 5 2	2,770 14 1	...	

Annual Form No. 52.—(*Prescribed.*)

FOREST DEPARTMENT, CENTRAL PROVINCES.

Statement of Outstandings on account of Revenue, 1877-78.

Divisions,	Outstandings at commencement of year.			Value of sales and other revenue during year.			Total.			Amount realized during year.			Balance due to the Department at end of year			Remarks.
	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.	
Direction	139	13	1	3,703	8	8	3,843	5	9	3,843	5	9	...	...	...	
Mandla Division	1,854	3	0	50,722	8	7	52,576	11	7	50,722	8	7	1,854	3	0	
Jubbulpore do.	...	...	..	19,384	0	9	19,384	0	9	19,384	0	9	...	...	...	
Hoshangabad do.	1,769	13	4	65,058	6	2	66,828	3	6	66,828	3	6	...	...	...	
Betul do.	...	...	...	39,028	1	2	39,028	1	2	39,028	1	2	...	...	...	
Nimar do.	...		...	54,918	9	5	54,918	9	5	54,918	9	5	...	...	...	
Chanda do.	2,752	9	0	88,572	5	1	91,324	14	1	85,322	13	7	6,002	0	6	
Seoni do.	...	...	...	64,132	11	5	64,132	11	5	64,123	11	5	9	0	0	
Nagpur do.	...		...	16,042	1	10	16,042	1	10	15,921	15	10	120	2	0	
Saugor do.	341	13	5	41,785	9	0	42,127	6	5	41,885	4	5	242	2	0	
Eastern do.	...	...	..	81	9	10	81	9	10	81	9	10	...	...	..	
Total ...	6,858	3	10	4,43,429	7	11	4,50,287	11	9	4,42,060	4	3	8,227	7	6	

Annual Form No. 55. (*Prescribed*).

FOREST DEPARTMENT, CENTRAL PROVINCES.

Statement of timber and other produce brought to depot from the different Forest divisions, 1877-78.

Division	Forest.	Description of Timber, &c.	No. of		Total of each Division.		Remarks.
			Pieces.	Cubic feet	Pieces.	Cubic feet.	
Mandla	Kanah	Sal logs	165	6,490			
	Ramdhar	do.	1	18			
	Mandla	do.	1	29			
	Kanah	Sal sleepers	328	1,253			
	Gwarighat	do	6	21			
	Motinalla	do.	153	532			
	Kisli	do.	419	1,392			
	Mocha	do.	129	103			
	Banjer valley	do.	1,121	2,027			
	Suckrighat	Teak logs	5	56			
	Gwarighat	do.	2	...			
	Choharigogarh	do.	206	4,383			
	Mandla	do.	68	987			
	Kundra Seoli	do.	88	877			
	Kisli	Sal scantlings	48	125			
	Mocha	do.	79	106			
	Barala	Teak pieces	25	...			
	Mandla	Sal pieces	46	...			
	Gwarighat	Sutkata wood	3	...			
	Ditto	Beeja and Dowara sleepers	3	4			
	Ditto	Gola	1	...			
	Banjer valley	Sal Purra	125	...			
	Mocha	Boats	16	...			
	Ditto	Bullees	825	...			
	Suckrighat	do	850	...			
	Kisli	Bambus	1,600	...			
	Mocha	do.	120	...			
	Banjer valley	do.	93,240	...			
	Mandla	do.	6,875				
	Rampoorah	do.	9,102	..			
					1,15,650	18,403	
Hoshangabad.	Joli	Beejasal sleepers	1	1			
	Itarsi	Dowra slabs	22	...			
	Jubbulpore	Teak scantlings	418	...			
	Rajaborari	do. choolias	50	...			
	Joli	Bambus	12,000	...			
	Rajaborari	Teak poles	21,129	...			
		do. charputs					
		do choolias					
		do sakties					
	Sowligarh	Teak poles	4,939	...			
		do. charputs					
		do. choolias					
		do. sakties					
		do. khakars					
					38,559	1	
Betul.	Khamapur	Teak logs	32	199			
	Do.	Saj logs	40	269			
	Do.	Bambus	25,000	.			
	Bowergarh	Teak khakers	431	...			
	Do.	do. pardhi	241	...			
					25,744	468	
Nimar.	Punassa	Teak poles	27,664	...			
	Jai	do.	204	...			
	Harmala	do.	70	...			
	Dabar	Teak bullees	10,261	...			
	Do.	do. pieces	6,208	...			
	Piplod	do. rafters	8,084	...			
	Do.	do. planks	2	...			
	Do.	do. choolias	2	...			

Annual Form No. 55. (*Prescribed*).—Contd.

Division	Forest.	Description of Timber, &c.	No. of		Total of each Division.		Remarks.
			Pieces.	Cubic feet.	Pieces.	Cubic feet.	
Nimar. Contd.	Piplod ...	Teak charputs ...	1	...			
	Do. ...	Nave pieces ...	2	...			
	Do. ...	Bambus ...	11,202	...			
					63,700		
Chanda.	Allapilli ...	Teak logs ...	6,473	87,100			
	Do. ...	do. scantlings ...	12,101	18,418			
	Do. ...	do. furdays ...	10,690	43,685			
	Do. ...	do. planks ...	1,258	478			
	Do. ...	do. sleepers ...	425	1,396			
	Do. ...	do. slabs ...	1,721	6,940			
	Do. ...	do. furras ...	769	440			
	Do. ...	Hurdoo scantlings ...	27	103			
	Do. ...	Saj scantlings ...	288	1,130			
	Do. ...	do. slabs ...	126	542			
	Do. ...	Teak khakers ...	126	...			
	Do. ...	Bijasal scantlings ...	2	23			
	Do. ...	Koosoom furday ...	7	24			
	Do. ...	Teak battens ...	6,029	...			
	Do. ...	do. dongas ...	8	...			
	Do. ..	Bambus ..	3,353	...			
	Warora ...	do. ...	19,000	...			
	Hinganghat ...	do. ...	2,650	...			
	Mohurli ...	do. ...	600	...			
	Nagpur ...	do. ...	525	...			
	Do. ...	Baskets ...	1,285	...			
	Do. ...	Soops ...	1,605	...			
					69,068	1,60,279	Inclusive of receipts by conversion.
Seoni.	Korai ...	Teak poles ...	5,035	...			
	Telia ...	Do. ...	1,704	...			
	Korai ...	Teak pieces ..	88	...			
	Do. ...	Saj golas ...	3	...			
	Do. ...	do. karries ...	2	...			
	Do. ...	Tendoo polos ...	2	...			
	Nagpur ...	Salai logs ...	15	...			
	Korai ...	Bambus ...	44,600	...			
					51,449	...	
Saugor	Hathkho ...	Teak bullees ...	155	...			
	Saugor ...	Do. ...	1	...			
					156	...	
Eastern.	Hathibari ...	Teak logs	5	101			
					5	101	
				Total ...	3,64,331	1,79,252	

Annual Form No. 56.—(*Prescribed*).

FOREST DEPARTMENT, CENTRAL PROVINCES.

Account of timber and other produce, 1877-78.

Particulars.	Pieces		Total		Particulars.	Pieces.		Total.	
	No.	Cub ft	No.	Cub. ft.		No.	Cub. ft.	No.	Cub. ft.
Balance in hand at commencement of year.					Removed by purchasers.				
Logs round ... Teak ...	10,077	103,668			Logs round ... Teak ...	326	5,253		
Sal ...	1,604	54,851			Sal ...	122	3,374		
Logs squared ... Teak ...	742	7,524			Logs squared ... Teak ...	493	4,984		
Sal ..	8	78			Logs other than Teak and Sal ...	9	...		
Logs other than Teak and Sal ...	65	1,514			Scantlings Teak ...	999	1,191		
Scantlings ... Teak ...	25,772	27,325			Sleepers . Teak ...	2,570	8,411		
Sal ..	94	323			Sal ...	90	290		
Sleepers ... Teak .	4,333	14,416			Other than Teak and Sal ...	520	701		
Sal ...	1,501	5,362			Planks and Battens ...	954	1,665		
Other than Teak and Sal ...	1,092	1,446			Slabs other than Teak and Sal ...	14	..		
Planks and Battens ...	4,848	6,211			Pieces marketable . Teak ...	56,495	...		
Slabs ... Teak ...	1,077	9,734			Other than Teak and Sal ...	171	...		
Pieces marketable Teak ..	334	..			Poles ... Teak ...	6,176	...		
Poles ... Teak	2,108	...			Other than Teak and Sal ...	143	...		
Other than Teak and Sal ...	250	...			Boats ...	4	..		
Boats ...	16	...			Bambus ...	123,100	...		
Bambus ...	145,941	...			Bambu manufactured articles ...	2,890	...		
			199,862	2,32,452				195,076	25,869

Annual Form No. 56.—(*Prescribed*).—Contd.

Particulars.	Pieces.		Total.	
	No.	Cub. ft.	No	Cub. ft.
Received during year.				
Logs round ... Teak	6,879	93,703		
Logs round ... Sa	167	6,537		
Logs other than teak and Sal	55	269		
Scantlings ... Teak	12,519	18,418		
Scantlings ... Sal	127	231		
Scantlings ... Other than Teak and Sal	317	1,256		
Sleepers ... Teak	425	1,396		
Sleepers ... Sal	2,156	5,328		
Sleepers ... Other than Teak and Sal	4	5		
Planks and Battens	7,287	478		
Slabs ... Teak	1,721	6,940		
Slabs ... Other than Teak and Sal	148	541		
Pieces marketable .. Teak	90,344	44,126		
Pieces marketable .. Sal	171	...		
Pieces marketable .. Other than Teak and Sal	7	24		
Poles ... Teak	9,222	...		
Poles ... Other than Teak and Sal	1	...		
Boats	24	...		
Bambus	229,867	...		
Bambu manufactured articles	2,890	...		
			364,331	179,252
Increase on re-measurement.				
Logs squared ... Teak	85	85		
Planks ... Teak	...	65		
			...	150
Total	...	...	564,193	411,854

Particulars	Pieces.		Total.	
	No.	Cub. ft	No.	Cub. ft.
Lost or used by the Department.				
Logs round ... Teak	8,523	1,10,319		
Logs round ... Sal	61	3,635		
Logs other than Teak and Sal	13	166		
Scantlings . Teak	596	10		
Sleepers ... Teak	1	2		
Sleepers ... Sal	6	30		
Planks and Battens	126	...		
Slabs ... Teak	1,070	9,674		
Slabs ... Other than Teak and Sal	8	...		
Pieces marketable Teak	1	...		
Poles Teak	650	...		
Poles Other than Teak and Sal	108	...		
Bambus	3,964	...		
			15,127	123,836
Balance in hand at close of year.				
Logs round ... Teak	8,107	81,812		
Logs round ... Sal	1,588	54,379		
Logs squared ... Teak	249	2,620		
Logs squared ... Sal	8	78		
Logs other than Teak and Sal	98	1,598		
Scantlings ... Teak	36,696	44,527		
Scantlings ... Sal	221	553		
Scantlings ... Other than Teak and Sal	317	1,256		
Sleepers ... Teak	2,187	7,391		
Sleepers ... Sal	3,561	10,361		
Sleepers ... Other than Teak and Sal	576	759		
Planks and Battens Teak	11,055	5,104		
Slabs Teak	1,728	7,000		
Slabs Other than Teak and Sal	126	561		
Pieces marketable Teak	34,182	44,126		
Pieces marketable Other than Teak and Sal	7	24		
Poles ... Teak	4,504	...		
Boats	36	...		
Bambus	2,48,744	...	3,53,990	2,62,149
Total	...	...	5,64,193	4,11,854

Form No 57.

FOREST DEPARTMENT, CENTRAL PROVINCES.

Statement showing the amount realized on account of the different classes of Timber and other produce sold during 1877-78.

Divisions.	Description of Timber &c	No of pieces &c sold	Cubical contens	Amount realized and due on account of sales			Average amount per log, &c			Average cubical contents of logs.	Average amount per cubic foot.			Remarks
				Rs.	a	p.	Rs	a	p.		Rs.	a	p.	
Mandla ..	Sal logs ...	122	3,374	4,867	0	0	39	14	3	27 6	1	7	1	
	Sal sleepers	83	290	21	0	0	0	4	1	3 5	0	1	2	
	Teak logs . .	64	1,339	2,271	0	0	35	7	9	20 9	1	11	1	
	Beeja and Dowra sleepers	527	701	1,187	0	0	2	4	0	1·3	1	11	1	
	Teak pieces	177	..	128	0	0	0	11	6	...	...	.	..	
	Teak bullies	350	.	5	0	0	0	0	2	...	...	.	..	
	Sal pieces	46	..	36	0	0	0	12	6	...	..		..	
	Gola	1	..	3	0	0	3	0	0	...	...	.	..	
	Sal purras	125	...	25	0	0	0	3	2	...	...	.	..	
	Sutkata wood . .	3		1	0	0	0	5	4	...	...	...	..	
	Boats	2	..	40	0	0	20	0	0	...	.	...	..	
	Bambus	66,960	...	855	0	0	*1	4	5	...			..	* Average amount per hundred.
Hoshangabad ...	Teak logs ..	12	106	53	0	0	4	6	8	8 8	0	8	0	
	Teak scantlings	205	...	224	0	0	1	1	5	...	...	..	..	
	Dowra slabs	14	...	3	0	0	0	3	5	...	..	.	..	
	Teak poles ...													
	„ charputs													
	„ choolhas	26,118	...	6,442	0	0	0	3	11		...		..	
	„ sakties													
	„ khakers													
Betul ...	Teak logs	176	1,057	198	0	0	1	2	0	6	0	3	0	
	Teak khardi	241	...	122	0	0	0	8	1	...	...	..	..	
	Teak khakers	431		34	0	0	0	1	3	...	...	..	..	
	Teak pieces, 8 cart loads	...	...	24	0	0	.	.	...	...	. .	...	.	
	Bambus	200	...	3	0	0	†1	8	0	...	...	...	...	† Average amount per hundred.
Nimar ...	Teak poles	19,948	...	3,165	0	0	0	2	6	...	...	...	..	
	Teak bullies	1,933	...	215	0	0	0	1	9	...	...	...	.	
	Teak rafters	8,075	...	1,058	0	0	0	2	1	...	...	..	.	
	Bambus	11,202	...	252	0	0	‡2	4	0	...	...	...	...	‡ Average amount per hundred.

Annual Form No. 57.—Contd.

FOREST DEPARTMENT, CENTRAL PROVINCES.

Divisions.	Description of Timber &c.	No. of pieces &c. sold.	Cubical contens.	Amount realized and due on account of sales.			Average amount per log &c.			Average cubical contens of logs.	Average amount per cubic foot.			Remarks.
				Rs.	a.	p.	Rs.	a.	p.		Rs.	a.	p.	
Chanda ...	Teak logs round	72	2,650	4,343	0	0	60	5	1	36·8	1	10	3	
	,, planks	954	1,665	2,638	0	0	2	12	3	1·7	1	9	5	
	,, sleepers	2,570	8,411	16,826	0	0	6	8	9	3·2	2	0	0	
	,, scantlings	791	1,191	2,160	0	0	2	11	8	1·5	1	13	0	
	,, khakers	43	...	40	0	0	0	14	10	..	...	..	..	
	,, squared logs	493	4,984	8,691	0	0	17	10	0	10·1	1	11	10	
	Bambus	6,471	...	349	0	0	*5	6	3	..	...	...	..	* Average amount per hundred.
..	Baskets	1,285	...	67	0	0	0	0	10	...	...	..	...	
	Soops	1,605	...	73	0	0	0	0	8	...	...	...	...	
	Boats	2	...	120	0	0	60	0	0	...	.	...	...	
Seoni ...	Saj golas	39	...	61	0	0	1	9	0	...	...	...	..	
	Saj bullies	20	..	27	0	0	1	5	7	...	...	...	...	
	Teak poles	4,425	...	1,043	0	0	0	3	9	...	...	...	..	
	,, pieces	68	...	33	0	0	0	7	9	...	...	...	..	
	Saj kurrees	2	...	5	0	0	2	8	0	...	...	..	...	
	Tendu poles	2	...	..	..	..	...	..	.	...	...	..	...	
	Salai logs	9	...	50	0	0	5	8	10	...	...	..	.	
	Bambus	38,292	...	1,748	0	0	†4	9	0	...	...	...	...	† Average amount per hundred.
Saugor ...	Teak bullies ...	913	...	627	0	0	0	10	11	...	...	...		
Eastern ...	Teak logs	5	101	50	0	0	10	0	0	20·2	0	7	11	
	Total ...	1,95,076	25,869	60,183	0	0	...	.	...	...	...	...	...	
Deduct amount due but not realized during year				3,826	0	0								
	Balance .			56,357	0	0								
Add amount realized on account of former years				2,997	0	0								
Add amount collected by District Officers				3,720	0	0								
Total shown as Revenue on account of sales under Budget head 1 *a* & *c*. .				63,074	0	0								

Form No. 58.

FOREST DEPARTMENT, CENTRAL PROVINCES.

Statement showing the amount expended on the different classes of timber and other produce brought to depot during 1877-78.

Division or Depot.	Particulars of Timber &c.	Number of		Expenditure			Average			Remarks.
		Pieces	Cubical contents	Timber expenses under A. L.	Quota of all other expenditure chargeable against timber, &c.	Total amount chargeable against timber, &c	Amount per piece.	Cubical content, per piece.	Amount per cu. foot.	
				Rs. a. p.	Rs. a. a.	Rs a. p	Rs a. p		Rs. a p.	
Kisli ..	Sal logs ..	61	2,634	299 0 9	194 10 4	493 11 1	8 1 6	43	0 3 0	
Mocha ..	Ditto	473	18,459	1,675 8 7	1,026 5 6	2,701 14 1	5 11 5	39	0 2 4	
Ditto ..	Boats ..	16		133 6 3	. ... .	133 6 3	8 5 4	...	... . .	
Ditto .	Sal sleepers ...	2,201	5,762	871 8 11	275 5 1	1,146 14 0	0 8 4		0 3 2	
Ditto ..	Do. scantlings ..	110	200	132 15 11	.. .. .	132 15 11	0 13 4	...	0 10 7	
Ditto ..	Bambus ..	81,550	...	.. .	460 8 10	460 8 10	. . ...	...	.	
Mandla	Sal logs	248	9,640	1,312 1 3	183 10 10	1,495 12 1	6 0 6	39	0 2 4	
Ditto	Sal sleepers* .	2,140	7,224	708 12 3	... .	708 11 3	0 5 3	..	0 1 6	* Different sizes.
Ranipura .	Bambus ..	55,872		... ...	187 8 1	187 8 1	... ...	...	.	
Suckri ..	Sal logs ..	240	9,435	375 10 9	247 7 7	623 2 4	2 9 7	39	0 1 0	Exclusive of establishment charges, which it is not possible to apportion.
Ditto	Sal sleepers	2,121	7,167	184 8 8	87 10 1	272 2 9	0 2 1	..	0 0 2	
Ditto	Bambus ..	48,772	...	.. ... .	88 1 9	88 11 9	... .	..	..	
Gowarighat ...	Sal sleepers† ..	1,206	4,293	309 11 2	... .. .	309 11 2	0 4 1	...	0 1 1	†Different sizes.
Ditto	Bamboo	50,560			324 12 6	324 12 6	... ...	...	.. .. ..	
Chohariyogarh ...	Teak logs ..	206	4,383	124 10 0	138 0 0	262 10 0	1 4 4	21	0 0 9	
Kundara kole ...	Do. unreserved forests .	88	877	35 2 0	62 11 2	97 13 2	1 1 9	9	0 1 9	
Mandla ...	Do. do. ..	68	987	6 9 6	4 1 11	10 11 5	0 2 6	14	0 0 2	
Gwarighat ..	Do do. ..	70	1,017	54 15 6	... .	54 15 6	0 12 5	14	0 0 10	
Allahabad ..	Sal logs ..	9	305	145 9 0	.. ... .	145 9 0	16 2 9	34	0 7 7	
Motinala .	Sal sleepers .	96	334	35 8 0	... ...	35 8 0	0 5 11	...	0 1 8	
Banjar valley Depot ..	Sal sleepers‡ ..	2,031	4,864	619 2 6	.. . ..	619 2 6	0 4 10	...	0 2 0	‡Different sizes.
Ditto .	Bambus .	110,937	...	... .	192 15 9	192 15 9	...	...	... ..	
Ahmedpur ...	Teak logs ..	190	2,641	46 10 0	... .	46 10 0	0 3 1	14	0 0 3	

Form No. 58 —*Contd.*

Division or Depot.	Particulars of Timber, &c.	Number of		Expenditure			Average			Remarks.
		Pieces.	Cubical contents	Timber expenses under A I	Quota of all other expenditure chargeable against timber, &c.	Total amount chargeable against timber, &c	Amount per piece	Cubical contents per piece	Amount per cubic foot.	
Hoshangabad.				Rs. A. P	Rs A. P.	Rs. A P.	Rs. A. P	ft. in.	Rs. A. P	
Kamapur Reserve ...	Teak logs ..	68	468	4 4 0	... .	4 4 0	0 1 0	7 0	0 0 2	Omitted as correct information has not been furnished by Divisional Officer.
Do. ...	... Do ...	56	319	62 4 0	... .	62 4 0	1 1 10	5 8	0 3 2	
Do. ...	.. Saj logs ...	40	269	7 8 0	.. .	7 8 0	0 3 0	6 9	0 0 6	
Do. ...	... Bambus ..	25,000	...	...	62 0 0	62 0 0	2 7 8	...	...	
Do. ...	... Teak timber ...	418	...	50 3 0	... ...	50 3 0	0 1 11	...	...	
Punasa Block II...	... Teak poles ...	20,498		491 7 6	1 14 8	493 6 2	0 0 5	..	... .	
Do. V...	... Do. . .	1,024	...	68 8 9	1 14 8	70 7 5	0 1 1	...	... . ..	
Kalibheet ...	... Small Teak logs ..	293	...	73 4 0	1 14 8	75 2 8	0 4 1	...	... ...	Exclusive of Establishment charges, which it is not possible to apportion.
	Bambus ..	2	...	0 8 0	.. . .	0 8 0	0 4 0	...	... ...	
Punasa ...	... Do. ..	200	...	...	... .	. ..	...		... .	
Chandgarh ...	... Do. ..	11,000	.	82 8 0	3 13 4	86 5 4	0 0 1	.	... .	
Dabar ..	.. Teak poles ..	16,469	. .	122 12 6	0 13 0	123 9 6	0 0 7	...	... .	
Bir ...	... Small pieces of the inferior wood	48	...	16 7 0	... .	16 7 0	0 5 5	...	... .	
Allapilli Depot ...	...Teak logs from Government Forest .	297	5,413							
Do. ...	... Do. from Zemindari..	6,176	82,087	12,207 9 10	5,141 11 11	17,349 5 9	2 10 10	7 2	0 3 2	
Do. ...	... Do. scantlings ..	12,101	18,418							
Do. ...	... Do planks ..	1,258	478							
Do. ...	... Do. sleepers ..	425	1,396							
Do. ...	... Do. slabs .	2,060	10,536							
Do. ...	... Do. furdays ..	11,270	44,577	14,278 12 6	5,512 8 8	19,791 4 8	0 11 2	2 8	0 4 1	
Do. ...	... Do nurdoo scantlings	27	103							
Do. ...	... Do. daj do. .	288	1,130							
Do. ...	... Koosum slabs ..	7	24							
Do. ...	... Teak furrahs ...	769	441							
Do. ...	... Saj slabs ...	126	542							

Gurh Ahiri Depot	...	Teak scantlings	...	315	454		9	9	0		2	9	7		12	2	7	0	0	3	2	5		6	0	1	} Inclusive of share of Establishment and Control charges, but not of Direction, which it is not possible Control to apportion.
Wangapilli Depot	...	Do.	..	4,989	7,715		274	2	11		71	3	10		345	6	9	0	1	1	1	6		0	0	8	
Do.	...	Sleepers	...	489	1,780		65	15	9		17	2	6		83	2	3	0	2	6	3	8		0	0	9	
Chichgandi	...	Teak sleepers	...	641	2,526		26	5	0		6	12	2		33	1	2	0	0	9	3	11		0	0	2	
Indaramghat	...	Teak scantlings	...	311	361	}	93	8	7		24	7	0		117	15	7	0	2	2	0	9		0	2	8	
Do.	...	Teak planks	...	548	329																						
Do.	...	Furrahs	...	426	242	}	144	10	10		38	11	2		183	6	0	0	3	7	1	0		0	3	6	
Do.	...	Furdays	...	67	282																						
Do.	...	Do. logs	...	278	3,988		758	1	7		197	1	3		955	2	10	3	6	11	14	14		0	3	10	
Do.	...	Do. piles squared	...	3	98		18	13	5		4	15	0		23	12	5	7	4	9	32	9		0	3	10	
Boreghat, Do.	...	Do. furdays	...	572	750		166	0	0		43	2	6		209	2	6	0	5	11	1	3		0	4	7	
Do.	...	Do. scantlings	...	567	1,179		168	9	4		43	15	0		212	8	4	0	4	7	2	1		0	2	2	
Hirnurree, Do.	...	Do. scantlings	...	897	1,358		176	2	2		45	12	2		221	14	4	0	3	11	1	6		0	2	7	
Do.	...	Do. sleepers	...	1,302	4,759		248	9	3		64	11	10		313	5	1	0	3	10	3	7		0	1	0	
Do.	...	Do. furdays	...	1,663	7,047		1,688	8	3		438	14	1		2,127	6	4	1	4	5	4	2		0	4	6	
Ballarpur	...	Teak sleepers	...	1,302	4,759		165	15	6		43	2	6		209	2	0	0	2	6	3	7		0	0	8	
Ditto	...	,, scantlings	...	2,020	5,909		122	9	9		31	15	8		154	9	5	0	1	2	2	11		0	0	5	
Ditto	...	,, planks	...	138	207	}	186	4	3		48	1	7		234	5	10	0	3	9	2	9		0	1	4	
Ditto	...	,, furdays	...	839	2,516																						
Ditto	...	,, bambus	...	1,045	...		15	2	9		3	14	5		19	1	2	0	0	3	1	No.	...	..	..		
Tullana	...	Teak sleepers	...	1,068	3,930		197	11	6		51	7	8		249	3	2	0	3	9	3	8		0	1	0	
Ditto	...	,, scantlings	...	900	764		197	5	10		50	11	2		246	1	0	0	4	4	0	10		0	5	2	
Ditto	...	,, planks	...	139	199		5	5	0		1	4	9		6	9	9	0	0	9	1	5		0	0	6	
Ditto	...	Logs round	...	226	5,797		3,020	14	11		787	12	9		3,817	11	8	16	14	3	21	9		0	10	6	
Warora	...	Teak sleepers	...	413	1,438		174	1	0		45	3	10		219	4	10	0	8	6	3	5		0	2	5	
Ditto	...	,, scantlings	...	912	784		176	7	0		45	12	1		222	3	1	0	3	10	0	10		0	4	6	
Ditto	...	,, planks	...	139	1,000		80	2	0		20	12	9		100	14	9	0	11	7	7	2		0	1	7	
Ditto	...	,, bambus	...	19,000	...																						
Hinganghat	...	,, bambus	...	2,650	...																						
Nagpur	...	Male bambus	...	525	...		148	6	10		38	7	8		186	14	6	0	0	1	...		...	...	...		
Ditto	...	,, bambus	...	700	...																						
Ditto	...	,, baskets	...	1,285	...																						
Ditto	...	,, soops	...	1,605	...																						
Kamptee Depot	...	Teak scantlings	...	397	620		314	11	8		81	14	5		396	10	1	0	10	6	1	8		0	6	1	
Ditto	...	,, planks	...	214	417		88	8	9		22	14	1		111	6	10	11	1	1	...		...	...	...		
Korai	...	Teak poles	...	5,118	} ...		581	3	2		226	0	0		807	3	2	0	2	6	...		...	...	...	} Inclusive of Establishment and Control charges, but not of Direction charges.	
Ditto	..	Miscellaneous poles	...	5																							
Ditto	...	Bambus	...	44,600	...		150	0	0		60	0	0		210	0	0	0	7	6	...		...	...	...		
Telia	...	Teak poles	...	1,700	} ...		70	6	0		30	0	0		100	6	0	0	0	11	...		...	...	...		
		Miscellaneous poles	...	4																							
West Pench	...	Salai logs	..	15	...		31	0	0		5	0	0		36	0	0	2	6	4	...		...	...	...		
Nagpur	...	Teaks poles	...	140	...		64	12	9		32	8	0		97	4	9	0	11	1	...		...	...	...		
Ditto	...	,, bambus	...	10,961	...		405	3	9		206	0	0		611	3	9	5	9	8	...		...	...	...		
Ditto	...	Salai logs	...	15	...		35	0	0		19	8	0		54	8	0	3	10	1	...		...	...	...		
Kamptee Depot	...	Bambus	...	13,339	...		466	13	1		252	0	0		718	13	1	5	6	4	...		...	...	...		
Saugor	...	1st class teak bullies from Hathku	...	1,007	} ...		272	1	4		773	1	1		1,045	2	5	0	14	10	...		...	...	...	Inclusive of Establishment charges except Direction.	
		2nd class ditto	...	155																							
				...	...		45,358	9	6		18,077	6	10		63,431	0	4	...	...	...	...		...	...	...		

Form No. 59.

FOREST DEPARTMENT, CENTRAL PROVINCES.

Statement showing the Revenue derived from, and expenditure incurred on Timber and other produce, sold to public departments from Depot during the year 1877-78.

Name of Department.	Particulars of supplies.	Amount supplied.	Rate. At	Rate. Per.	Amount of Revenue. Due.	Received.	Outstanding	Cost to Forest Department. Timber expenses under A I	Quota of all other expenditure chargeable against timber &c.	Total.	Comparison of revenue & expenditure. Surplus.	Deficit.
		Rs.	Rs. A. P.		Rs. A. P.	Rs. A. P.	R.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	R.
Holkar "State" Railway ..	Bija & Dowra sleepers ..	523	... .	2 0 0 Each.	1,175 12 0	1,176 12 0	...	426 12 1	213 6 0	640 2 1	536 9 11	...
P. W. Department, C. P. ..	Sal logs ..	59	1,836 0 0	1 8 8 C. ft.	2,835 14 3	2835 14 3	...	1,039 11 1	519 13 6	1,559 8 7	1,276 5 8	...
Ditto .	Teak logs ...	8	163 0 0	1 15 5 ..	325 11 6	325 11 6	...	10 3 0	... .	10 3 0	315 8 6	...
Ditto	„ round ..	33	1,079 4 4	2 0 0 ...	2,158 11 9	2,158 11 9	...	1,146 13 0	297 15 4	1,444 12 4	713 15 5	..
Ditto ..	Do. ..	7	219 1 11	1 12 0 ...	325 10 7	325 10 7	...	177 15 0	46 4 6	224 3 6	101 7 1	..
Ditto	Teak logs, square ..	482	4,872 4 8	1 12 0 .	8,554 9 5	8,554 9 5	...	6,090 0 0	1,583 6 4	7,673 6 4	881 3 1	...
Ditto .	Teak logs ..	5	100 0 0	0 8 0 ...	50 0 0	50 0 0	.	... ..	... ...	... ...	50 0 0	...
Ditto ..	„ sleepers 9 ×10 ×5 .	1,470	4,592 3 4	6 4 0 Sleeper	9,187 8 0	9,187 8 0	...	5,453 0 0	1,417 12 6	6,870 12 6	2,316 11 6	...
Ditto ...	„ „ 10'×10 ×5 '..	1,100	3,819 2 4	6 15 1½ ...	7,638 14 3	7,638 14 3	...	4,535 1 0	1,179 1 7	5,714 2 7	1,924 11 8	...
Ditto ..	„ scantlings ..	1	4 2 8	2 0 0 C. ft.	8 7 1	8 7 1	...	3 7 0	0 14 6	4 5 6	4 1 7	..
Ditto .	Do.	397	620 1 7	1 12 0 ...	1,085 4 0	1,085 4 0	...	503 12 0	131 0 7	634 12 7	450 7 5	..
Ditto .	Do. ..	8	29 0 0	1 8 1 ...	30 0 0	30 0 0	.	20 0 0	5 3 2	25 3 2	4 12 10	...
Ditto .	Do. ..	107	182 4 4	1 6 0 ...	250 11 11	250 11 11	..	148 4 6	38 7 8	186 12 2	63 15 9	..
Ditto ...	Teak planks ..	21	43 4 0	2 12 0 ...	119 4 6	119 4 6	..	43 6 0	11 2 1	54 8 1	64 12 5	...
Ditto ..	Do. ..	28	131 3 0	2 0 0 ...	262 8 0	262 8 0	...	131 4 0	34 1 0	165 5 0	97 3 0	...
Ditto	Do. ..	211	496 6 4	1 12 0 ..	868 14 0	868 14 0	...	401 15 0	104 8 3	506 7 3	362 6 9	...
Ditto ..	Do. ..	495	928 1 6	1 6 0	1,276 2 9	1,276 2 9	...	696 0 8	180 15 4	877 0 0	399 2 9	...
Ditto	Boat	1	... ...	20 0 0 Each	20 0 0	20 0 0	.	8 5 4	.. .. ..	8 5 4	11 10 8	...
Ditto ...	Teak khakers ..	200	... ..	75 0 0 100	150 0 0	150 0 0	...	... ...	... . ..	... ...	150 0 0	.
Military Department, (Hyderabad Contingent 4th Cavalry)...	Bambus ...	600	... .	25 0 0 100	150 0 0	150 0 0	..	10 0 0	2 9 7	12 9 7	137 6 5	...
Educational Department, C. P.	Sal logs ..	2	32 0 0	1 12 10 C. ft.	37 12 0	37 12 0		18 1 10	9 0 10	27 2 8	10 9 4	...
Ditto ..	Teak logs ..	1	19 0 0	1 7 1 ...	28 8 0	28 8 0	...	2 9 2	1 4 7	3 13 9	24 10 3	...
Ditto ..	Do. ..	2	44 0 0	1 8 0	77 5 7	77 5 7	...	2 12 0	... ...	2 12 0	74 9 7	...
School of Industry, Jubbulpore.	Sal logs ..	1	19 0 0	1 8 7 ...	29 3 3	29 3 3	...	10 12 0	5 6 0	16 2 1	13 1 2	...
Ditto	Teak logs ..	35	613 0 0	1 8 0 ...	919 3 0	919 3 0	...	83 0 2	41 8 1	124 8 3	794 10 9	.
Ditto ..	Teak pieces ..	8	4 12 10	0 9 7 Each	4 12 10	4 12 10	...	1 2 3	... ...	1 2 3	3 10 7	..
Ditto ...	Bija & Dowra sleepers	4	... ...	2 8 0 ...	10 0 0	10 0 0	...	3 4 3	1 10 1	4 14 4	5 1 8	.
Police Department. C P. ..	Sal logs ..	2	90 6 0	1 0 0 C. ft.	90 8 0	90 8 0	...	2 5 7	0 12 6	3 2 1	87 5 11	...
Ditto ..	„ pieces ..	11	... .	1 0 0 Each	11 0 0	11 0 0	..	1 3 2	... ...	1 3 2	9 12 10	...
Ditto ..	Bullies ..	100	... .	2 0 0 100	2 0 0	2 0 0	..	2 0 0	... ...	2 0 0	... ...	...
Ditto ...	Bambus	6,000	... .	12 0 0 1,000	72 0 0	72 0 0	...	72 0 0	... .	72 0 0	... ..	...
Military Dept., (Ordnance) ..	Salai logs ..	9	... ...	... ...	49 15 9	49 15 9	...	38 14 0	4 3 8	43 1 8	6 14 1	...
	Total ..		.. ..	... ..	37,807 4 5	37,807 4 5	...	21,083 14 2	5,830 7 8	26,914 5 10	10,892 14 7	...
									Deduct deficit ...	. . ..		...
									Balance for the Department ...		10,892 14 7	...

Form No. 60.

FOREST DEPARTMENT, CENTRAL PROVINCES.

Abstract showing the value of Timber and of live and dead stock for the year 1877-78.

Description of Timber and other stock.	On hand at commencement of the year.		Received during the year.		Total.		Sold, otherwise disposed of, and lost during the year, and allowance for depreciation.		On hand at the close of the year.		Cause of loss and other particulars.
	Number	Value.	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.	
		Rs.		Rs.		Rs.		Rs.	Rs.	Rs.	
Logs round ... Teak ...	10,077	87,075	6,879	90,339	16,956	177,414	8,849	113,425	8,107	58,989	
Logs round ... Sal ...	1,604	49,570	167	3,269	1,771	52,839	183	7,366	1,588	45,473	
Logs squared ... Teak ..	742	13,081	...	6	742	13,087	493	9,490	249	3,597	
Logs squared ... Sal ...	8	39	...	25	8	64	...	...	8	64	
Logs other than Teak and Sal ..	65	1,511	55	108	120	1,619	22	665	98	954	
Scantlings ... Teak ..	25,772	29,032	12,519	12,374	38,291	41,406	1,595	6,185	36,696	35,221	
Scantlings ... Sal ...	94	162	127	70	221	232	...	...	221	232	
Scantlings ... Other than teak and sal...	..		317	628	317	628	...	...	317	628	
Sleepers . Teak ...	4,333	17,540	425	1,275	4,758	18,815	2,571	8,884	2,187	9,931	
Sleepers . Sal ...	1,501	1,710	2,156	2,724	3,657	4,434	96	730	3,561	3,704	
Sleepers . Other than teak and sal...	1,092	1,365	4	5	1,096	1,370	520	524	576	846	
Planks and battens teak ...	4,848	5,923	7,287	1,406	12,135	7,329	1,080	793	11,055	6,536	
Slabs ... Teak ...	1,077	7,376	1,721	7375	2,798	14,751	1,070	7,256	1,728	7,495	
Slabs ... Other than teak and sal	..	...	148	142	148	142	22	5	126	137	
Pieces marketable ... Teak ...	334	247	90,344	58,038	90,678	58,285	56,496	15,815	34,182	42,470	
Pieces marketable ... Sal ...	...	...	171	61	171	61	171	61	...	...	
Pieces marketable ... Other than teak and sal .	...	...	7	6	7	6	.	...	7	6	
Poles ... Teak	2,108	544	9,222	1,2 1	11,330	1,795	6,826	901	4,504	894	
Poles ... Other than teak and sal...	250	169	1	1	251	170	251	170	...	...	
Boats ...	16	160	24	640	40	800	4	140	36	660	
Bambus ...	1,45,943	1,441	229,867	4,152	375,808	5,593	127,061	2,456	248,744	3,137	
Bambu manufactured articles ...	...	...	2,890	140	2,890	140	2,890	140	...	...	
	199,862	216,945	364,331	1,84,035	564,193	4,00,980	2,10,203	1,80,006	353,990	2,20,974	
Elephants ...	7	7,922	...	...	7	7,922	1	1,709	6	6,213	
Other livestock ..	187	1,716	2	70	189	1,786	22	447	167	1,339	
Machinery ...	...	8,014	..	113	...	8,127	...	1,103	...	7,024	
Other dead stock ...	...	24,015	...	3,333	...	27,348	...	6,148	...	21,200	
	194	41,667	2	3,516	196	45,183	23	9,407	173	35,776	
Total . .	200,056	2,58,612	364,333	1,87,551	564,389	4,46,163	210,226	1,89,413	354,163	2,56,750	

NOTE.—Difference in value at commencemt and close of the year, Rs. 1,852.

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FOREST DEPARTMENT, CENTRAL PROVINCES.

Statement of Forest bulldings in the Central Provinces costing over Rs. 200 each at the close of the year 1877-78.

Division.	Situation	Description of buildings.	Value	Rent charged.	REMARKS
			Rs.	Rs.	
Mandla ..	Kisli on the boundary of Banjar	Rest-house, 2 rooms, wooden frame, thatch roof and wattle walls ...	250	...	No. rent charged.
Do. ...	Khana in Banjar ..	Do. do. ...	250	...	Do
Jubbulpore ...	Khitowli ...	Rest-house, room and veranda, kutcha brick walls .	400	...	Do.
Chanda .	Chanda Civil Station ..	Terrace roof Bungalow ...	8,000	40 per mensem	For part of the building only, part in use as an office, and a part being available for the 2nd Officer when at head quarters
Do. ...	Moharli ..	Rest-house ..	500	...	No rent charged.—
Do ..	Allapilli ...	Do ..	300		Do.
Hoshangabad ..	Head quarters ..	Small pucca Bungalow ..	2,094	6 per mensem.	For the use of small portion of the building for short periods.
Nimar ..	Do ..	Do. do. .	4,054	16 Do	For a portion of building only.
Seoni ...	Korai ..	Small pucca Inspection Bungalow ..	1,000	...	No rent charged.
Saugor ...	Garhakota ...	Pucca Inspection Bungalow ...	1,000	...	An old building, made over to the Department with the forest ; no rent charged